



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 18-110322-LO

Project Name/Address: Cougar Ridge Estates/16677 SE Cougar Mtn Way

Planner: Drew Folsom

Phone Number: 425-452-4441

Minimum Comment Period: May 24, 2018

Materials included in this Notice:

- ☒ Blue Bulletin
- ☒ Checklist
- ☒ Vicinity Map
- ☒ ☐ ☐ ☐ Plans
- ☐ ☐ ☐ Other:

OTHERS TO RECEIVE THIS DOCUMENT:

- ☒ State Department of Fish and Wildlife / Sterwart.Reinbold@dfw.gov; Christa.Heller@dfw.wa.gov;
- ☒ State Department of Ecology, Shoreline Planner N.W. Region / Jobu461@ecy.wa.gov; sepaunit@ecy.wa.gov
- ☒ Army Corps of Engineers Susan.M.Powell@nws02.usace.army.mil
- ☒ Attorney General ecyolyef@atg.wa.gov
- ☒ Muckleshoot Indian Tribe Karen.Walter@muckleshoot.nsn.us; Fisheries.fileroom@muckleshoot.nsn.us



DEVELOPMENT SERVICES DEPARTMENT
450 110TH AVENUE NE
BELLEVUE, WA 98009-9012

SEPA Environmental Checklist

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit the Land Use Desk in the Permit Center between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4) or call or email the Land Use Division at 425-452-4188 or landusereview@bellevuewa.gov. Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service).

Purpose of checklist:

The City of Bellevue uses this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies and reports. Please make complete and accurate answers to these questions to the best of your ability in order to avoid delays.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

PLEASE REMEMBER TO SIGN THE CHECKLIST. Electronic signatures are also acceptable.

A. Background [\[help\]](#)

1. Name of proposed project, if applicable: [\[help\]](#)
Cougar Ridge Estate Restoration

2. Name of applicant: [\[help\]](#)

Vadim Scherbinin

3. Address and phone number of applicant and contact person: [\[help\]](#)

Address: 1 Lake Bellevue Drive, Suite 111, Bellevue, WA 98005

Phone: (425) 220-2142

4. Date checklist prepared: [\[help\]](#)

March 16, 2018

5. Agency requesting checklist: [\[help\]](#)

City of Bellevue

6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

Once approved, work will be conducted following issuance of all permits and subject to any seasonal timing restrictions.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

No, this activity is a result of unpermitted clearing.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

Cougar Ridge Estate Critical Areas Report - The Watershed Company, 2016

Cougar Ridge Estate Wetland and Stream Delineation Study - The Watershed Company, 2016

Critical Slope Mitigation Report – LeRoy Surveyors & Engineers (LS&E), 2015

Critical Areas Land Use Permit (Code Violation) – The Watershed Company, March 2018.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [\[help\]](#)

The applicant does not have any other proposals in government review for the subject parcel.

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

City of Bellevue SEPA review

City of Bellevue Critical Areas Land Use Permit, Clearing and Grading Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead

agencies may modify this form to include additional specific information on project description.)

[\[help\]](#)

Unauthorized vegetation clearing occurred within 2.3 acre project site beyond what was originally approved under the property's building permit. The clearing removed 33,610 square feet of vegetation, mostly within the stream, wetland, steep slope and their buffers as well as 51 significant trees. The proposal will include stabilizing the site via erosion control measures and re-planting the cleared area with native ground cover, shrubs, and trees.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [\[help\]](#)

The property is located at PLS Section: 25NW Township: 24N Range: 05E. Parcel # is 252059192 and is located along SE Cougar Mountain way between 167th Ave SE and 166th Way SE. The address is 16677 SE Cougar Mountain Way Bellevue, WA 98006.

B. Environmental Elements [\[help\]](#)

1. Earth [\[help\]](#)

- a. General description of the site: [\[help\]](#) (select one): ☐ Flat, ☐ rolling, ☐ hilly, ☒ steep slopes, ☐ mountainous, other: *Click here to enter text.*

- b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)
Approximately 40%

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [\[help\]](#)

According to the USDA Natural Resource Conservation Service (NRCS) Web Soil Survey maps, the soils across the site are mapped as 90% Alderwood gravelly sandy loam (AgC) and 10% Beausite gravelly sandy loam (BeD).

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [\[help\]](#)

According to the Critical Area Slope Mitigation Report from LS&E, landslide hazard and steep slope areas exist on site, although no surface indications or history of unstable soils

were reported.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

There will be no further filling, excavation, or grading proposed as part of this project.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

Eroision could occur. The measures described below will help minimize erosion.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

No additional impervious surface will occur related to this project proposal.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

Installing Temporary Erosion Control (TSEC) elements including silt fencing around the work area, straw wattles along the stream boundaries, and a 4" thick wood chip mulch around all areas outside Wetland A. All clearing and grading construction would be in accordance with City of Bellevue Clearing and Grading Code, Clearing & Grading Erosion Control Standard Details (EC-1 through EC-23), Development Standards, Land Use Code, permit conditions, and all applicable codes, ordinances and standards.

2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [\[help\]](#)

Fossil fuel emissions will be temporarily present during delivery of mulch, plants, TESC materials, and irrigation piping. The installation of elements, planting, and installation of a temporary irrigation system will be done by hand therefore no direct emissions will result from these activities.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

There are no off-site sources of emissions that will affect the project.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

N/A

3. Water [\[help\]](#)

a. Surface Water :

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [\[help\]](#)

There is a stream and a wetland located on site. The stream is a Type O stream and the wetland is a Category III wetland. These features are described in detail in the Cougar Ridge Estate Wetland and Stream Delineation Study.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [\[help\]](#)

Yes, the proposed project includes work within 200 feet of the described waters. Please see the mitigation plan within the March 2018 Vegetation Management Plan.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [\[help\]](#)

No fill or dredging of surface waters or wetlands is proposed.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

No .

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)

No .

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [\[help\]](#)

No intentional discharges of waste materials would occur during project mitigation work.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

There will be no withdrawal of or discharge to ground water associated with this project.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the

number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [\[help\]](#)

There will be no waste material from septic tanks or other sources discharged into the ground as part of this project.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [\[help\]](#)

The source of runoff currently originates from a small seep near the center of the property accumulating within the Stream A's OHWM, as documented by exhibits contained within the October 2016 Critical Areas Report (16-142789-LO) and March 2018 Vegetation Management Plan. The channel is narrow at the top and broadens out slightly at the base of the hillside and infiltrates into gravelly soils near SE Cougar Mountain Way without connecting to any other streams or wetlands.

- 2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)
TESC Best Management Practices will prevent waste materials from entering the ground or surface waters as a result of this proposal.
- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [\[help\]](#)
Drainage patterns down the slope towards Wetland A on the southwestern portion of the site will not be affected by proposed native vegetation installation efforts.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [\[help\]](#)

The erosion control measures described under question 1h would help control impacts to surface and runoff water. In addition, installation of a 4" cover of mulch/wood chips in combination with native plantings will help to restore pre-existing functions.

4. Plants [\[help\]](#)

- a. Check the types of vegetation found on the site: [\[help\]](#)
 - ☒deciduous tree: alder, maple, aspen, other: *Click here to enter text.*
 - ☒evergreen tree: fir, cedar, pine, other: *Click here to enter text.*
 - ☒shrubs
 - ☐grass

- ☐pasture
- ☐crop or grain
- ☐Orchards, vineyards or other permanent crops.
- ☒wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other: *Click here to enter text.*
- ☐water plants: water lily, eelgrass, milfoil, other: *Click here to enter text.*
- ☒other types of vegetation: *English holly, Himalayan Blackberry, Reed canarygrass, Evergreen Blackberry, Japanese knotweed, Robert's Geranium*

- b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)
Invasive species (especially Japanese knotweed) will be removed from the wetland and wetland buffer area. No vegetation will be altered, clearing has already occurred.
- c. List threatened and endangered species known to be on or near the site. [\[help\]](#)
No threatened or endangered plant species are known to be on or near the site.
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)
The proposed restoration plan involves installing native plants within the critical area and buffers to compensate for the impacts associated with the unauthorized clearing. See the restoration plan for details.
- e. List all noxious weeds and invasive species known to be on or near the site. [\[help\]](#)
Creeping Buttercup, English holly, Himalayan Blackberry, Reed canarygrass, Evergreen Blackberry, Japanese knotweed, Robert's Geranium

5. Animals [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [\[help\]](#)

Examples include:

birds: ☒hawk, ☐heron, ☒eagle, ☒songbirds, other: *Pileated woodpeckers*

mammals: ☒deer, ☐bear, ☒elk, ☐beaver, other: *raccoon*

fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, other: *Click here to enter text.*

- b. List any threatened and endangered species known to be on or near the site. [\[help\]](#)
None.
- c. Is the site part of a migration route? If so, explain. [\[help\]](#)
No.

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)
Installation of a variety of native plants and control of invasive plants on site, as described in the vegetation management plan.

- e. List any invasive animal species known to be on or near the site. [\[help\]](#)
None.

6. Energy and Natural Resources [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [\[help\]](#)
Gas will be used to transport materials necessary to initiate site restoration.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [\[help\]](#)
No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [\[help\]](#)
There are no energy conservation measures associated with the vegetation restoration plan.

7. Environmental Health [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [\[help\]](#)
Sheet 7 of the restoration plans calls for application of a herbicide Imazapyr to eradicate knotweed present in the southern portion of the Wetland A and its buffer.
- 1) Describe any known or possible contamination at the site from present or past uses. [\[help\]](#)
There are no known present contamination sources at the site from present or past use.
- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [\[help\]](#)
There are no present hazardous chemicals or conditions present at the site within the project area and vicinity.
- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [\[help\]](#)
The application of the herbicide Imazapyr will occur between July and September, during the dry season.

4) Describe special emergency services that might be required. [\[help\]](#)
If a spill occurs during application of Imazapyr, Department of Ecology has a Spill Response team that can assist through contacting 1-800-645-7911.

5) Proposed measures to reduce or control environmental health hazards, if any: [\[help\]](#)
Application of the herbicide will only occur by state-licensed applicators, following all label directions to apply the recommended amount.

b. Noise [\[help\]](#)

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)
There is no noise in the area that would affect this project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)?
Indicate what hours noise would come from the site. [\[help\]](#)
Noise associated with the proposed project would be restricted to the use temporary vehicle deliveries of mulch, plants, TESC equipment and irrigation piping. Dump truck noise would be limited to normal daytime working hours, in compliance with LUC 9.18.

3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)
As mentioned above, noise would be limited to daylight hours, 7am to 10pm on weekdays and 9am to 10pm on weekends (LUC 9.18).

8. Land and Shoreline Use [\[help\]](#)

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [\[help\]](#)
While the site is technically vacant, it is currently under construction to build a single family residence. The proposed restoration will help re-establish habitat and critical area functionality.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [\[help\]](#)
No.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides,

tilling, and harvesting? If so, how: [\[help\]](#)

No.

- c. Describe any structures on the site. [\[help\]](#)

A building foundation has been poured to establish the preliminary footprint of the house.

- d. Will any structures be demolished? If so, what? [\[help\]](#)

No.

- e. What is the current zoning classification of the site? [\[help\]](#)

Single Family Residential (R-1)

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)

The current comprehensive plan designation of the site is Single Family - Low Density (SF - L)

- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

Not applicable.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)

Yes; there is a wetland, a stream, and steep slopes on site.

- i. Approximately how many people would reside or work in the completed project? [\[help\]](#)

A typical family would reside at the completed project site, once restoration and house construction is complete.

- j. Approximately how many people would the completed project displace? [\[help\]](#)

No people will be displaced by this project.

- k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)

Not applicable.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)

The proposed vegetation management plan and restoration planned for the site meet the criteria for mitigation and restoration requirements as listed under LUC 20.25H.210. The City's comprehensive plan land use map shows the site being used for low density residential use, which is the ultimate goal to complete the single family residential construction.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: [\[help\]](#)

There are no applicable lands nearby.

9. Housing [\[help\]](#)

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [\[help\]](#)
No units would be directly provided by this restoration proposal.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)
No units would be eliminated.
- c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)
No measures are necessary.

10. Aesthetics [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)
No structures are proposed.
- b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)
Views on the upland portion of the parcel have been created in the immediate vicinity via the unpermitted clearing of 51 trees within the project site. Restoration plantings will eventually obstruct these views over the course of years when the planted coniferous and deciduous native tree species mature.
- c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)
No measures are necessary.

11. Light and Glare [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)
No lighting is proposed.
- b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)
No.
- c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)
No existing off-site sources of light are expected to affect the proposal.
- d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)
No such measures are necessary.

12. Recreation [\[help\]](#)

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)
There are no recreational opportunities in the immediate vicinity.
- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)
No.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)
No such measures are necessary.

13. Historic and cultural preservation [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [\[help\]](#)
No places or objects of this type are known to exist in the immediate vicinity.
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [\[help\]](#)
There are no landmarks or evidence of such in the immediate vicinity.
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [\[help\]](#)
Use of the WISAARD online search tool provided by the Washington State Department of Historic Preservation was used to identify whether cultural or historical resources were near the site.
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [\[help\]](#)
Should historic, archeological, scientific or cultural significant items be encountered during implementation of this project, work would be temporarily stopped while the appropriate agencies are notified.

14. Transportation [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [\[help\]](#)
The approved residence takes access from SE Cougar Mountain Way.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [\[help\]](#)
No. The nearest transit stop is at SE 63rd St and 155th Ave SE, about a 1 mile walk to the west of the proposed project.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)
The separate project to construct the single family residence has been approved for four parking spots.
- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [\[help\]](#)
The project will not require new improvements to existing road and related transportation infrastructure.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)
No.
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)
No generated vehicular trips are generated as part of this proposal.
- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [\[help\]](#)
This proposal will not affect or interfere with the movement of these products.
- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)
No such measures are necessary.

15. Public Services [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [\[help\]](#)
The mitigation proposed will not increase the need for public services.
- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)
No such measures are necessary.

16. Utilities [\[help\]](#)

- a. Circle utilities currently available at the site: [\[help\]](#)
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,

other

Electricity, natural gas, water, refuse service, telephone, sanitary sewer.

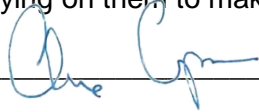
- c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [\[help\]](#)

No utilities are proposed for this project. TESC BMPs will be utilized to mitigate runoff during heavy rain events while the mulch, native plantings, and temporary irrigation system are being installed.

C. Signature [\[help\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

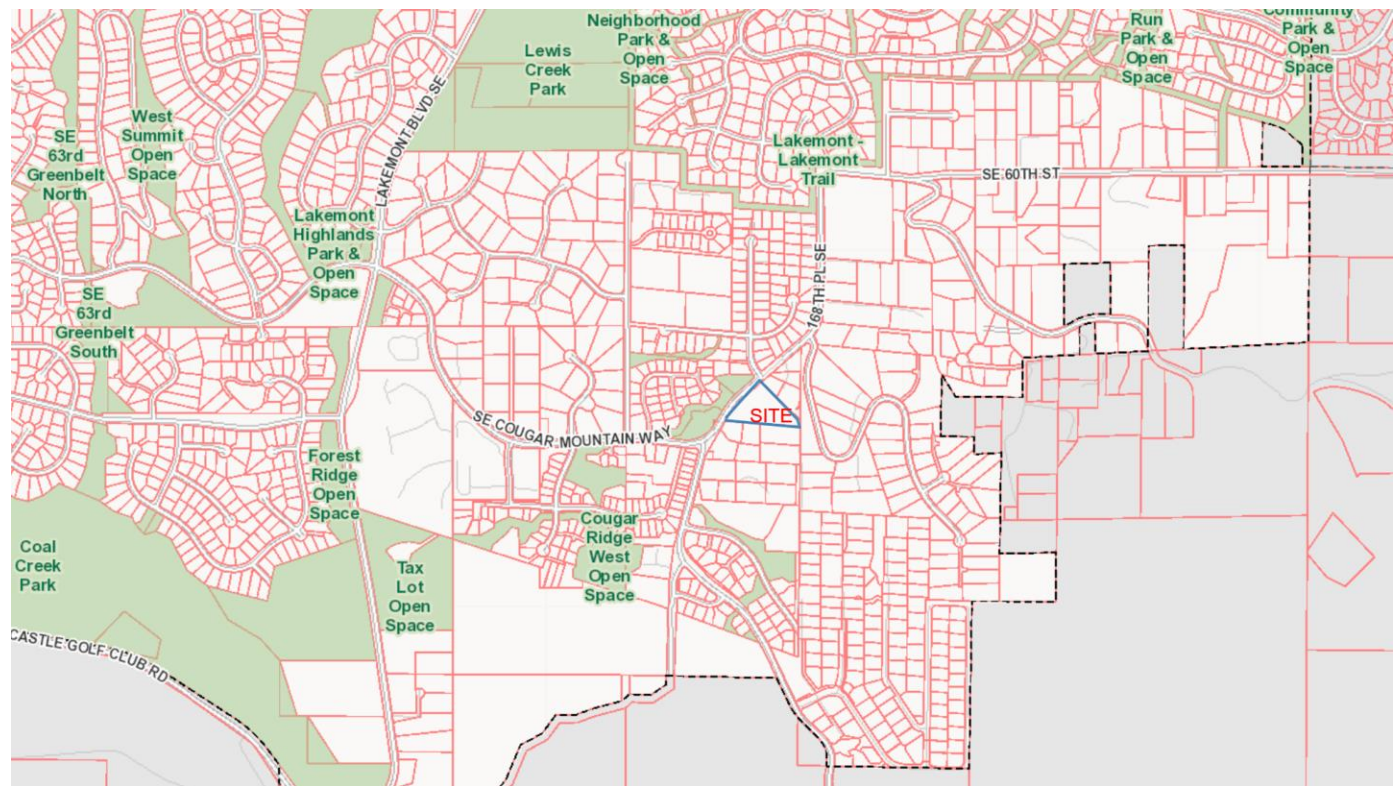
Signature: _____



Name of signee: *Alex Capron*

Position and Agency/Organization: *The Watershed Company*

Date Submitted: *Click here to enter a date.*



VEGETATION MANAGEMENT PLAN

Cougar Ridge Estate – Bellevue, WA

Prepared for:

Vadim Scherbinin
Apex Elite Homes
1 Lake Bellevue Drive, Suite 111
Bellevue, WA 98005

Prepared by:



750 Sixth Street South
Kirkland, WA 98033

p 425.822.5242

f 425.827.8136

watershedco.com

March 2018

The Watershed Company Reference Number:
160652

The Watershed Company Contact Person:
Kenny Booth, AICP
Ryan Kahlo, PWS

Cite this document as:
The Watershed Company, March 2018: Cougar Ridge
Estate Vegetation Management Plan.

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APPENDICES

Appendix A: Vegetation Management Plan

VEGETATION MANAGEMENT PLAN

COUGAR RIDGE ESTATE

1 INTRODUCTION

This Vegetation Management Plan (VMP) was prepared to bring the property into compliance after unauthorized vegetation clearing, including removal of significant trees, occurred in a wetland and wetland/stream buffer. The clearing area is located in the central and southwestern portion of the property located at 16677 SE Cougar Mountain Way (parcel number 2524059192). Unauthorized clearing followed a previous approval for reduction of critical area steep slope setbacks in order to construct a single-family residence on the parcel. The approval included restoration of setback impacts and enhancement of degraded wetland and wetland buffer.

City of Bellevue Land Use Code (LUC) 20.25H.055.C.3.i.vi allows for the replacement of vegetation within steep slopes and critical area buffers pursuant to a VMP. This VMP is intended to retroactively permit the unauthorized clearing activities while detailing how, when combined with proposed restoration plantings, there will be no significant diminishment in the functions and values of the steep slope, stream, wetland and buffer areas.

2 SITE DESCRIPTION

The property is located in the Coal Creek Drainage Basin; Cedar-Sammamish Water Resource Inventory Area (WRIA 8); Section 25, Township 24 North, Range 05 East. The subject property is shown in Figure 1 below. The non-permitted clearing area includes steep slope, wetland, and wetland/stream buffer areas. Upon restoration, this area will be the vegetation management area.

The property contains moderate and steep slopes that slope downhill in an east to west direction. Outside of the permitted construction area, the undeveloped property is an established, mixed forest containing western red cedar, Douglas-fir, and bigleaf maple trees in the canopy layer, with osoberry, vine maple, red elderberry, snowberry and sword fern prevalent in the understory.

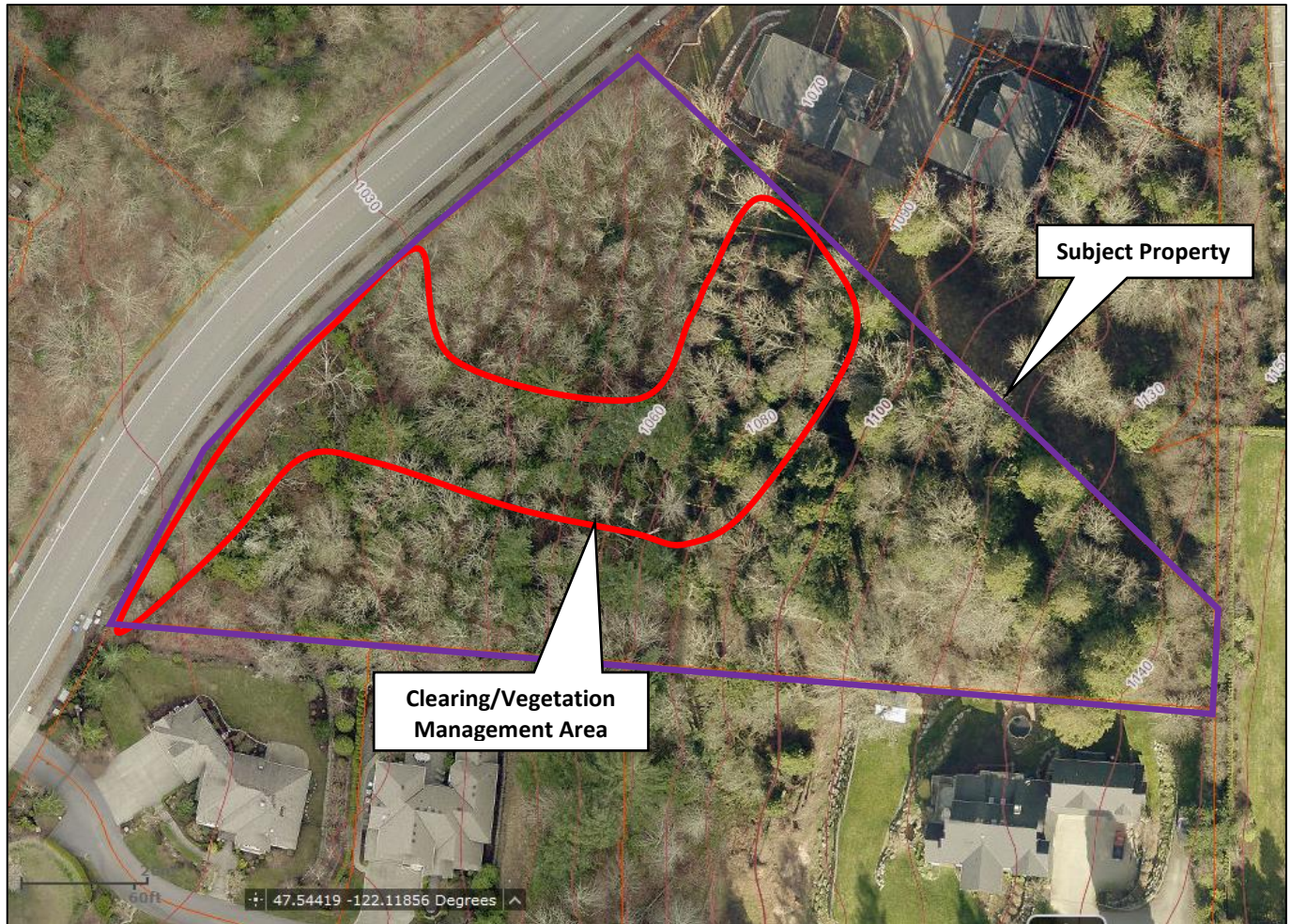


Figure 1. Subject property and site topography (King County iMAP).



Figure 2. Vegetation management area (2-16-2018)

2.1 Vegetation

The property is dominated by a second- and third-growth mixed coniferous-deciduous forest characterized by bigleaf maple, Douglas-fir, and western red cedar in the canopy. Prominent understory vegetation includes osoberry, red elderberry, salmonberry, low Oregon grape, and sword fern.

Table 1. Native plants observed within the vegetation management area by strata.

	Common Name	Botanical Name
Trees	Big-leaf maple	<i>Acer macrophyllum</i>
	Western red cedar	<i>Thuja plicata</i>
	Douglas-fir	<i>Pseudotsuga menziesii</i>
	Red alder	<i>Alnus rubra</i>
Shrubs	Salmonberry	<i>Rubus spectabilis</i>
	Osoberry	<i>Oemleria cerasiformis</i>
	Vine maple	<i>Acer circinatum</i>
	Snowberry	<i>Syphoricarpos albus</i>
	Salal	<i>Gaultheria shallon</i>
	Red elderberry	<i>Sambucus racemosa</i>
	Himalayan blackberry	<i>Rubus armeniacus</i>
	Black twinberry	<i>Lonicera involucrata</i>
	Swamp gooseberry	<i>Ribes lacustre</i>
	Low Oregon grape	<i>Mahonia nervosa</i>
	Evergreen blackberry	<i>Rubus laciniatus</i>
Ground cover	Pacific dewberry	<i>Rubus ursinus</i>
	Lady fern	<i>Athyrium filix-femina</i>
	Sword fern	<i>Polystichum munitum</i>
	Creeping buttercup	<i>Ranunculus repens</i>
	Piggy-back plant	<i>Tolemia menziesii</i>
	Cooley's hedgenettle.	<i>Stachys cooleyae</i>
	Catchweed bedstraw	<i>Gallium aparine</i>
	Robert's geranium	<i>Geranium robertianum</i>
	Giant horsetail	<i>Equisetum telmateia</i>
	Stinging nettle	<i>Urtica dioica</i>
	Watson's willowherb	<i>Epilobium ciliatum</i>
	Reed canarygrass	<i>Phalaris arundinacea</i>
	Japanese knotweed	<i>Polygonum cuspidatum</i>

Table 2. Invasive weeds identified and the noxious weed management status (King County).

Common Name	Botanical Name	Noxious Weed Status
Creeping buttercup	<i>Ranunculus repens</i>	weed of concern
English holly	<i>Ilex aquifolium</i>	weed of concern
Himalayan blackberry	<i>Rubus armeniacus</i>	Class C non-regulated noxious weed
Reed canarygrass	<i>Phalaris arundinacea</i>	Class C noxious weed
Evergreen blackberry	<i>Rubus laciniatus</i>	Class C non-regulated noxious weed
Japanese knotweed	<i>Polygonum cuspidatum</i>	Class B non-regulated noxious weed
Robert's geranium	<i>Geranium robertianum</i>	Class B non-regulated noxious weed

2.2 Critical Areas

The following critical areas have been documented on the subject property and within the vegetation management area.

2.2.1 Steep slopes

Slopes of 40 percent or greater that have a rise of at least 10 feet and exceed 1,000 square feet in area are regulated as steep slopes, a geologic hazard area (Land Use Code (LUC) 20.25H.120.2). Steep slopes require a standard buffer of 50 feet from the top-of-slope and a structure setback of 75 feet from the toe-of-slope. Steep slopes and buffers encumber much of the central portion of the parcel.

Vegetation on the steep slope functions as a source of potential habitat for urban wildlife species (see Habitat discussion in Section 2.3). The presence of trees and shrubs on the slope also provides slope stability and hydrologic functions through the interception of precipitation and transpiration; these plants remove water from the soil that might otherwise flow downslope towards natural and/or human resources.

2.2.2 Wetland

One wetland, referred to as Wetland A, is present within the parcel at a topographic break at the bottom of the slope along the western property boundary.

Wetland A is a depressional wetland with palustrine forested and scrub-shrub Cowardin vegetation communities dominated by red alder, salmonberry, Himalayan blackberry, reed canarygrass, creeping buttercup, lady fern, and giant horsetail.

Wetland A is classified, based on functions, using the *Western Washington Wetland Rating System* (Ecology, Aug 2004, version 2) (Rating System). Wetland functions include water quality improvement, hydrologic, and habitat functions. Using this system, Wetland A performs low-moderate for each of these functions.

The landscape position of the wetland (downslope from developed areas) in combination with partially dense herbaceous vegetation within the wetland provides Wetland A with the moderate potential and opportunity to improve water quality. Wetland A has low to moderate potential to perform hydrologic functions (comparable to slope wetlands) due to the structure of the vegetation in the wetland and the characteristics of the slope (small surface depressions present for at least 10% of the area); however, there is opportunity for this wetland to provide hydrologic functions due to roads and properties located downslope. Habitat potential is low based on a combination of factors that include low vegetative species structure and diversity, few hydroperiods, moderate habitat interspersions, and few special habitat features. There is however, some opportunity for this wetland to provide habitat based on the nearby landscape.

Wetland A received a total of 38 points which qualifies it as a Category III wetland. Category III wetlands with less than 20 habitat points require a standard buffer of 60 feet (LUC 20.25H.095).

2.2.3 Stream

A single stream, Stream A, is located on the property. Stream A originates from a small seep near the center of the property. Stream A supports very little flow, with no more than one or two inches likely present at any time. The channel is narrow at the top, but it broadens out slightly at the base of the hillside and infiltrates into the gravelly soils without connecting to any other streams or wetlands. The low flows, steep gradient (18 percent, per iMAP), and lack of connectivity to other waters preclude fish use in Stream A. As a non-fish-bearing stream that is not connected to any other streams or wetlands via a surface water connection, Stream A is classified as Type O (BLUC 20.25H.075.B.4). Type O waters on undeveloped properties require a standard buffer width of 25 feet (BLUC 20.25H.075.C.1.a.i).

2.3 Habitat

The habitat types present on the site, as defined in the Bellevue Urban Wildlife Habitat Literature Review, include mixed coniferous-deciduous forest, a stream, and a wetland. A diversity of plant species is present throughout these habitat areas on site (see Table1).

The forest canopy on site is dominated by mature big leaf maple trees. Several conifers are scattered throughout the site, primarily western red cedars upslope in the southeast portions of the parcel. Average forest canopy is approximately 80-100 feet high and several deciduous and coniferous trees with a large DBH (>30) are present. The understory is dominated by vine maple, Indian plum, and snowberry. The ground cover is dominated by sword fern, low Oregon grape, and Robert's geranium.

Habitat features in the wetland and stream areas include water-holding features, a recent nest, small to large snags (DBH 10-30), and downed wood. Species sign observed in the wetland and along the stream include woodpecker signs on snags and logs and a recent birds nest (robin-size).

The north patch, dominated by big leaf maple, featured large downed wood. Elk feces were observed in this area, downslope of where the on-site stream loses a surface channel.

In the forested patch containing conifers, habitat features observed include steep slopes, boulders, large downed wood, large snags, and large stumps. A red-tailed hawk and a northern red-legged frog were observed in the steep slope area northeast and upslope of the stream. Songbirds observed in this area include chickadees, kinglets, and juncos.

Woodpecker signs on snags were observed near high on the slope in the eastern portion of the parcel. Elk and racoon feces were present in this area.

Some invasive vegetation is present on site including English holly. The English holly is scattered throughout the parcel in a typical irregular dispersal pattern. Knotweed and creeping buttercup are present in the wetland area in the southwest corner of the parcel. Trace amounts of Himalayan blackberry are present near SE Cougar Mountain Way.

On-site habitat value is considered to be moderate. Large deciduous and coniferous trees are present on site and on adjacent properties. Vegetative species and structural diversity are relatively high; this combined with the presence of snags and woody debris, provides a variety of habitat niches. Berry-producing plants within and next to the vegetation management area, such as salmonberry, osoberry, and snowberry, provide a good food source for songbirds along with other varied plant parts such as seeds and cones.

Habitat functions provided on the property are slightly limited by habitat fragmentation, as the property is isolated from other quality habitat areas by existing development. Still, wildlife refuges in urban and suburban areas are valuable for resident and migratory species, and the property is located near extensive high-quality habitat areas on Cougar Mountain. The habitat provided by the property is likely used by very mobile species (birds) that are tolerant of urban areas. Other types of wildlife that could be expected to use the site would also be common in urban areas and include small mammals such as voles and mice, raccoons, opossums, deer, and elk.

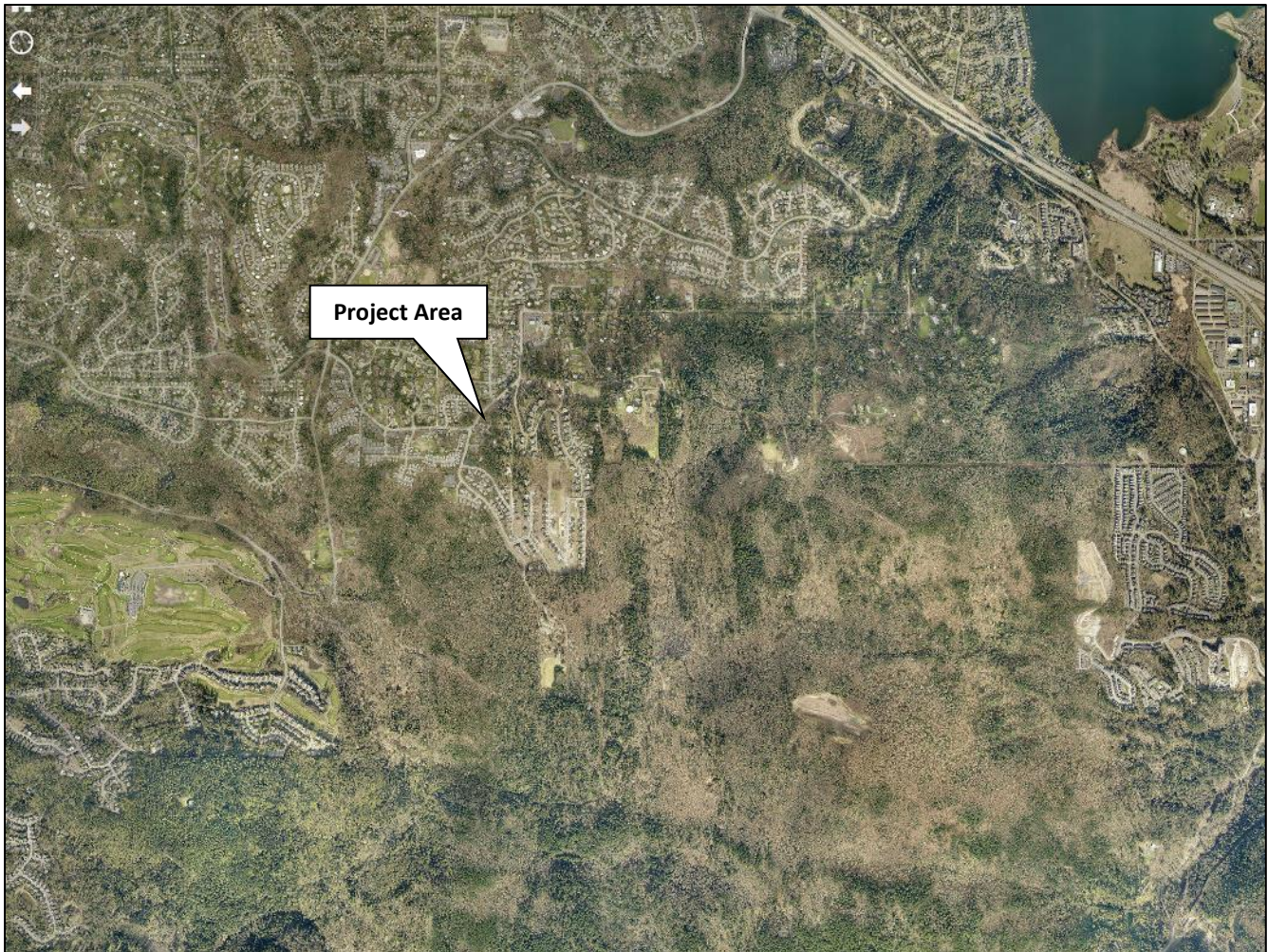


Figure 3. Landscape position of the subject property (King County iMAP).

2.4 Species of Local Importance

The City of Bellevue designates habitat associated with species of local importance as a critical area (LUC 20.25H.150.B). Species of local importance (LUC 20.25H.150.A) are listed in Table 3 below. A review of Washington State Department of Fish and Wildlife's Priority Habitats and Species (PHS on the Web) data does not indicate the presence of any species of local importance on or near the subject property.

Table 3. Species of Local Importance as defined in LUC 20.25H.150.A.

Common name	Scientific name
Bald eagle	<i>Haliaeetus leucocephalus</i>
Peregrine falcon	<i>Falco peregrinus</i>
Common loon	<i>Gavia immer</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Vaux's swift	<i>Chaetura vauxi</i>
Merlin	<i>Falco columbarius</i>

Purple martin	<i>Progne subis</i>
Western grebe	<i>Aechmophorus occidentalis</i>
Great blue heron	<i>Ardea herodias</i>
Osprey	<i>Pandion haliaetus</i>
Green heron	<i>Butorides striatus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Western big-eared bat	<i>Plecotus townsendii</i>
Keen's myotis	<i>Myotis keenii</i>
Long-legged myotis	<i>Myotis volans</i>
Long-eared myotis	<i>Myotis evotis</i>
Oregon spotted frog	<i>Rana pretiosa</i>
Western toad	<i>Bufo boreas</i>
Western pond turtle	<i>Clemmys marmorata</i>
Chinook salmon	<i>Oncorhynchus tshawytscha</i>
Bull trout	<i>Salvelinus confluentus</i>
Coho salmon	<i>Oncorhynchus kisutch</i>
River lamprey	<i>Lampetra ayresi</i>

PHS does not indicate the presence of any priority species on or within 0.5 mile of the property. Species closely associated with larger aquatic habitats (purple martin, great blue heron, osprey, and common loon) are not expected to use the habitat on the site. No other federal or state listed species are expected to have a close association with the habitat on site. The likelihood of each of the remaining species likely to occur in Bellevue to utilize the property is discussed below. Because the adjacent township contains known Townsend's Bat occurrences (PHS, masked data), the likelihood of this species using the site is also discussed.

2.4.1 Species that may infrequently occur in the vicinity

Species for which the conditions on site might provide adequate habitat to support use of the site, (but not considered to occur regularly or have a close association with the habitat on site) are: bald eagle, Vaux's swift, merlin, and Townsend's big-eared bat.

Bald Eagle

Bald eagles are common foragers over Lake Sammamish and Lake Washington, and active nests are known around those lake areas. Eagles may nest up to 4 km from large bodies of water containing fish and other food sources (NatureServe). Habitat features present on site that are bald eagle habitat (NatureServe) include forested wetland, mixed conifer woodland, and standing snags. However, local populations appear to breed closer to large water bodies than the vicinity around the study site. Bald eagles may fly over the site, but are unlikely to nest there. The property is not within a Bald Eagle Management Zone, as indicated by Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) data. The nearest documented nesting site is over three miles away on Lake Sammamish.

Vaux's swift

Vaux's swifts forage in open skies over forests, lakes, and rivers, where insects are abundant. Lake Sammamish and Lake Washington provide suitable foraging habitat, and the species may be present at times over the parcel. Nesting takes place in forest stands; old-growth forests where large, hollow snags are available are preferred nesting habitat in Washington (NatureServe). While the property does contain snags, it does not contain the hollow old-growth snags that Vaux's swifts prefer, so it is unlikely that the birds would nest on site.

Merlin

Merlins occur throughout western Washington in winter and during migration. Breeding birds are rare in the state. Occurrences are spotty, but not uncommon in suburban areas. Merlins typically nest in old nest sites built by other birds, usually in coniferous forests. Although the conditions on site might provide adequate habitat to support merlin use of the site, a close association between this species and the habitat on site is not expected.

Townsend's big-eared bat

Although Bellevue contains habitat for Townsend's big eared bats, the species does not have mapped occurrences in Bellevue (Bellevue Habitat Review). PHS data show a communal roost located in an adjacent township, starting approximately 0.75 miles east of the property. The habitat on site would probably not be considered suitable for roosting; large snags and trees present on the site may be of a suitable size, but nearby disturbance likely precludes the use of these features. This species has been known to travel up to 13 kilometers while foraging. Depending on the location of the communal roost in the nearby township, it is possible that Townsend's big-eared bats pass through the site while foraging.

2.4.2 Species that may have an association with the habitat on site

Two species of local importance may have an association with the habitat on site. A red-tailed hawk was observed during one of the site visits and habitat associated with pileated woodpeckers was noted. Therefore, an association with the habitat cannot be precluded for these species.

Red-tailed hawk

One red-tailed hawk was heard upslope of the stream near the northeast border of the parcel. Red-tailed hawks nest in large trees near woodland edges, but can also nest in shrub tops (NatureServe). Although no raptor nests were observed during the site visit, nesting habitat could include the larger trees near the forested edges on the subject property. Perches are an important habitat feature for red-tailed hawks, and the large

number of snags on site likely create refuge for hawks while foraging. Red-tailed hawks are ubiquitous in this area and likely occasionally fly over the parcel, and may use the larger snags, such as those in the wetland area, for perching.

Pileated woodpeckers

Pileated woodpeckers have become habituated to developed areas and may use snags on-site for foraging. Snags and trees on the property are not likely used for nesting; nest sites are normally located in larger forest stands with less surrounding development.

3 VEGETATION MANAGEMENT PLAN

The objective of the proposed vegetation management plan is to replace functions and values previously provided by the cleared area and establish dense native plants with low invasive plant cover. The cleared area included numerous mature trees; therefore, a temporal loss of function cannot be avoided or mitigated on the property.

The VMP will apply to those areas within the vegetation management area, as shown on the VMP plan set (Appendix A). Implementation of the proposed planting plan will include approximately 33,610 square feet of new native trees, shrubs, and ground cover plantings.

Implementation of the VMP will not involve grading; ground disturbance will be limited to the planting pits for new trees and shrubs. Effects of the clearing on Stream A do not appear to have resulted in significant channel degradation or channel movement. The plan does not involve re-grading the stream channel or other activities intended to modify the existing flow path. Impacts to the stability of the steep slope are not expected to occur. A four-inch-thick layer of course woodchip mulch shall be applied as soon as feasibly possible to the entirety of the vegetation management area, excluding Wetland A and Stream A. Straw wattles and high visibility fencing shall be placed around Stream A to prevent sediment and/or woodchip mulch from entering the stream channel. Plant installation shall occur during the first dormant season (October 15th – March 1st) following issuance of permits.

3.1 Proposed Vegetation

To replace the functions and values lost through unauthorized clearing, coniferous and deciduous trees will be planted to re-establish the canopy layer with a variety of shrubs and groundcovers in the understory. Vegetation selected is representative of species present prior to clearing activities to most accurately restore the prior condition. The species proposed for the vegetation management area are provided in Table 4.

Table 4. Native plants proposed within the vegetation management area by strata.

	Common Name	Botanical Name
Trees	Western red cedar	<i>Thuja plicata</i>
	Bigleaf maple	<i>Acer macrophyllum</i>
	Western hemlock	<i>Tsuga heterophylla</i>
	Red alder	<i>Alnus rubra</i>
Shrubs	Vine maple	<i>Acer circinatum</i>
	Red-osier dogwood	<i>Cornus sericea</i>
	Beaked hazelnut	<i>Corylus cornuta</i>
	Pacific ninebark	<i>Physocarpus capitatus</i>
	Badhip rose	<i>Rosa gymnocarpa</i>
	Snowberry	<i>Symphoricarpos albus</i>
	Swamp gooseberry	<i>Ribes lacustre</i>
	Twinberry	<i>Lonicera involucrata</i>
	Salmonberry	<i>Rubus spectabilis</i>
	Osoberry	<i>Oemleria cerasiformis</i>
	Red elderberry	<i>Sambucus racemosa</i>
Ground cover	Sword fern	<i>Polystichum munitum</i>
	Low Oregon grape	<i>Mahonia nervosa</i>

3.2 Ecological Functions

Functions lost as a result of the unpermitted clearing include a loss of habitat for a diversity of wildlife species including birds, large and small mammals, reptiles, and amphibians. In addition, the live trees provided hydrologic functions to the area, including interception of precipitation and transpiration. The tree root systems also provided slope stability. Since the ground and root systems of the trees were not disturbed, a significant change of the stability of the slope is not anticipated.

Over time, the critical area functions will be restored by the proposed plan; however, temporal loss of functions associated with a successional forest community cannot be mitigated on-site.

3.3 Short-term Objectives

1. Restore slope stability in cleared areas and maintain habitat functions to the extent feasible at this stage.
2. Restore native plant density per the planting plan (see Appendix A).
3. Maintain existing habitat features, specifically leave in place debris piles and snags that resulted from the clearing activities, as these provide quality habitat. The remaining root structures will continue to stabilize the slopes.

4. Provide a thick layer of mulch to help prevent erosion of exposed soils on the slopes, while maintaining moisture and preventing the spread of weeds to aid in the establishment of the installed vegetation.

3.4 Long-term Objectives

Establish native trees and shrubs throughout the vegetation management area to help maintain stability and enhance degraded critical areas. Long-term, the planting plan and general maintenance practices are intended to restore the ecologic services provided by the management area.

1. Improve wetland area and wetland buffer function by removing invasive weeds and establishing native trees and shrubs.
 - a. Create a dense, native, tree and shrub community.
 - b. Remove non-native and invasive plant species from the enhancement area.
2. Restore the areas where unauthorized clearing occurred to a diverse, forested community, including wetland, stream, and steep slope buffer areas.

4 FIVE YEAR MANAGEMENT PROGRAM

4.1 Project Initiation

1. Install appropriate TESC elements (Sheet W3) including silt fencing around the work area, straw wattles and high-visibility fencing along the stream boundaries, and a four-inch thick blanket application of course woodchip mulch in all areas outside of Wetland A and Stream A. This preparation should occur as soon as possible.
2. Install restoration plants per the Restoration Plan. Plant installation shall occur between October 15th and March 30th.
3. Provide as-built documentation to the City of Bellevue.

4.2 Years One through Five

The site will be maintained in accordance with the following instructions for five years following completion of the construction.

- 1) Follow the recommendations noted in the previous monitoring site visit and the spring maintenance memo.

- 2) General weeding for all planted areas:
 - a. At least twice yearly, remove all competing weeds and weed roots from beneath each installed plant and any desirable volunteer vegetation to a distance of 18 inches from the main plant stem. Weeding should occur at least twice during the spring and summer. Frequent weeding will result in lower mortality, lower plant replacement costs, and increased likelihood that the plan meets performance standards by Year 5.
 - b. More frequent weeding may be necessary depending on weed conditions that develop after plan installation.
 - c. Do not weed the area near the plant bases with string trimmer (weed whacker/weed eater). Native plants are easily damaged or killed, and weeds easily recover after trimming.
- 3) Apply slow release granular **fertilizer** to each installed plant annually in the spring (by June 1) of Years 2 through 5.
- 4) Replace mulch as necessary to maintain a 4-inch-thick layer, retain soil moisture, and limit weeds.
- 5) Replace dead plants found in the summer monitoring visits during the upcoming fall/winter dormant season (October 15 to March 1) or at the direction of the **restoration professional**.
- 6) Provide irrigation for the entire planted area with a minimum of one inch of water provided per week from June 1st through September 30th for at least the first two years following installation through the operation of a temporary **irrigation system**.

5 PERFORMANCE STANDARDS AND MONITORING PLAN

5.1 Performance Standards

The standards listed below shall be used to judge the success of the plan over time.

1. Plant Survival:
 - a. Achieve 100% survival of installed container plants by the end of Year-1. This standard can be met through plant establishment or through replanting as necessary to achieve the required numbers.
 - b. Achieve 80% survival of installed container plants by the end of Year-2. This standard can be met through plant establishment or through

replanting as necessary to achieve the required numbers. Native volunteers may count towards this standard.

2. Native Woody Plant Cover:

- a. Achieve 60% cover of native tree, shrub, and groundcover species by the end of Year 3. This may include existing and volunteer native understory plant species. At least 50% of aerial cover must be provided by tree and shrub species.
 - b. Achieve 85% cover of native tree, shrub, and groundcover species by the end of Year 5. This may include existing and volunteer native understory plant species. At least 75% of aerial cover must be provided by tree and shrub species.
3. Species diversity: Establish at least 3 native tree species, 5 native shrub species, and two native groundcover species in Years 3-5.
4. Invasive cover: No more than 10% cover by invasive weed species in the restoration areas in any monitoring year.

5.2 Monitoring Plan

This monitoring program is designed to track the success of the restoration site over time and to measure the degree to which it is meeting the performance standards outlined previously.

An as-built plan and report will be prepared by the **Restoration Specialist** prior to the beginning of the monitoring period. The as-built plan shall be a mark-up of the planting plans included in this plan set. The as-built report will document any departures in plant placement or other components from the proposed plan.

During the as-built inspection, the **Restoration Specialist** shall establish photo points and install monitoring transects in the planted area. Approximate transect and photo point locations shall be marked on the as-built plan. During each monitoring event, percent cover data shall be recorded along the established transects using the line-intercept method. If further documentation of cover is required, planted areas located outside of transects may be visually assessed using the cover class method.

Monitoring should take place twice annually for five years with one annual report submission. There shall be a spring and a late summer/fall visit. First-year monitoring should commence in the first summer or fall subsequent to installation.

The spring monitoring visit will record maintenance needs such as plant replacement and weeding needs. Following the spring visit the **Restoration Specialist** will notify the owner and/or maintenance crews of necessary early growing season maintenance. The second annual monitoring visit will contain the bulk of the site assessment and will take

place in the late summer or early fall. The late-season formal monitoring visit shall record and report the following in an annual report submitted to the City of Bellevue.

1. General summary of the spring visit.
2. Counts of live trees, shrubs, and groundcover by species in the planted areas in Years 1 and 2. Significant die-off should be reported by species and quantity in any monitoring year.
3. Estimate of native tree, shrub, and groundcover aerial coverage using the line-intercept method.
4. Estimate of invasive aerial coverage using the line-intercept method.
5. Photographic documentation from fixed reference points in each planting area.
6. Intrusions into the planting areas, vandalism or other actions that impair the intended functions of the planted areas.
7. Recommendations for maintenance or repair of any portion of the restoration area.

5.3 Construction Notes

The **Restoration Specialist** shall monitor:

1. Marking of the clearing limits with high-visibility fencing or similar means.
2. Installation of erosion control measures as shown on the TESC plan.
3. All site preparation, including invasive species management.
4. Application of a four-inch thick layer of **course woodchip mulch** in all cleared areas, except within Wetland A and Stream A.
5. All grading activities.
6. Plant material inspection.
 - a. Plant material delivery.
 - b. 100% plant installation inspection.

5.4 Material Specifications and Definitions

1. **Woodchip mulch:** Wood chips or equivalent (chipped woody material) approximately 1 inch minimum to 3 inches in maximum dimension (not sawdust or coarse hog fuel). Pacific Topsoil sells suitable woodchip mulch called "DOT Woodchip Mulch" at many of their locations. Pacific Topsoil: (800) 884-7645. Mulch shall not contain appreciable quantities of garbage, plastic, metal, soil, and dimensional lumber or construction/ demolition debris. Note: Arborist woodchips generally contain weed seeds and are not an acceptable alternative. Quantity Required: 445 CY

2. **Restoration Specialist:** The Watershed Company [425-822-5242] personnel or other person qualified to evaluate environmental restoration projects.
3. **Fertilizer:** Slow-release, phosphorous-free granular fertilizer, most commercial nurseries carry this product. Follow manufacturer's instructions for use. Keep fertilizer in weather-tight container while on-site. Fertilizer is only to be applied in Years 2-5, and at the direction of the Restoration Specialist. Fertilizer should not be applied in Year 1.

5.5 Contingency Plan

If any monitoring report reveals that the restoration plan has failed in whole or in part, and should that failure be beyond the scope of routine maintenance, the applicant will submit a contingency plan to the City of Bellevue for approval. This plan may include replanting, soil amendments or top-dressing, substitutions for species selected in the original plan, and adaptive weed control measures.

6 SUMMARY

The proposed vegetation management plan will ensure successful establishment of the proposed restoration area. While a temporal loss of function will occur as a result of the unauthorized clearing, restoration activities will restore the cleared area to natural state, similar in size and composition to the pre-existing condition. Overall, the plan will restore the functions and values of the on-site critical areas and forest and habitat characteristics of the site over time.

APPENDIX A

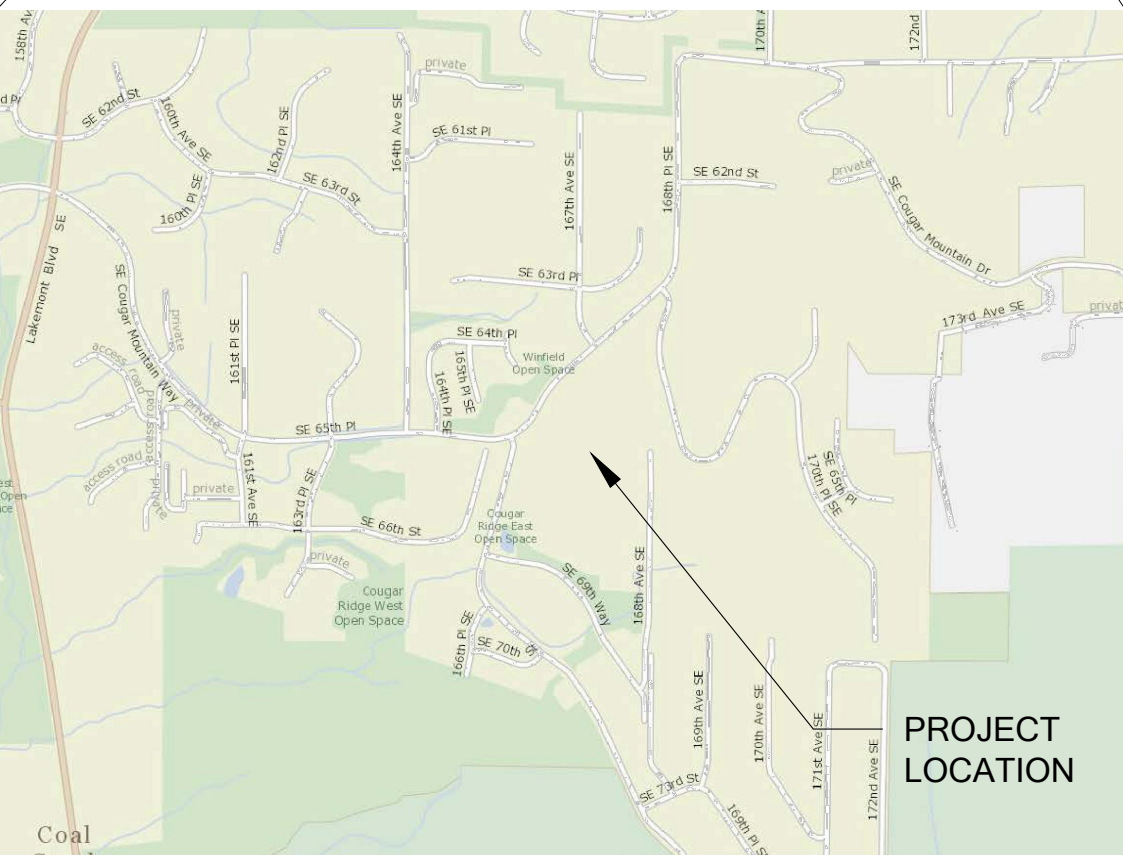
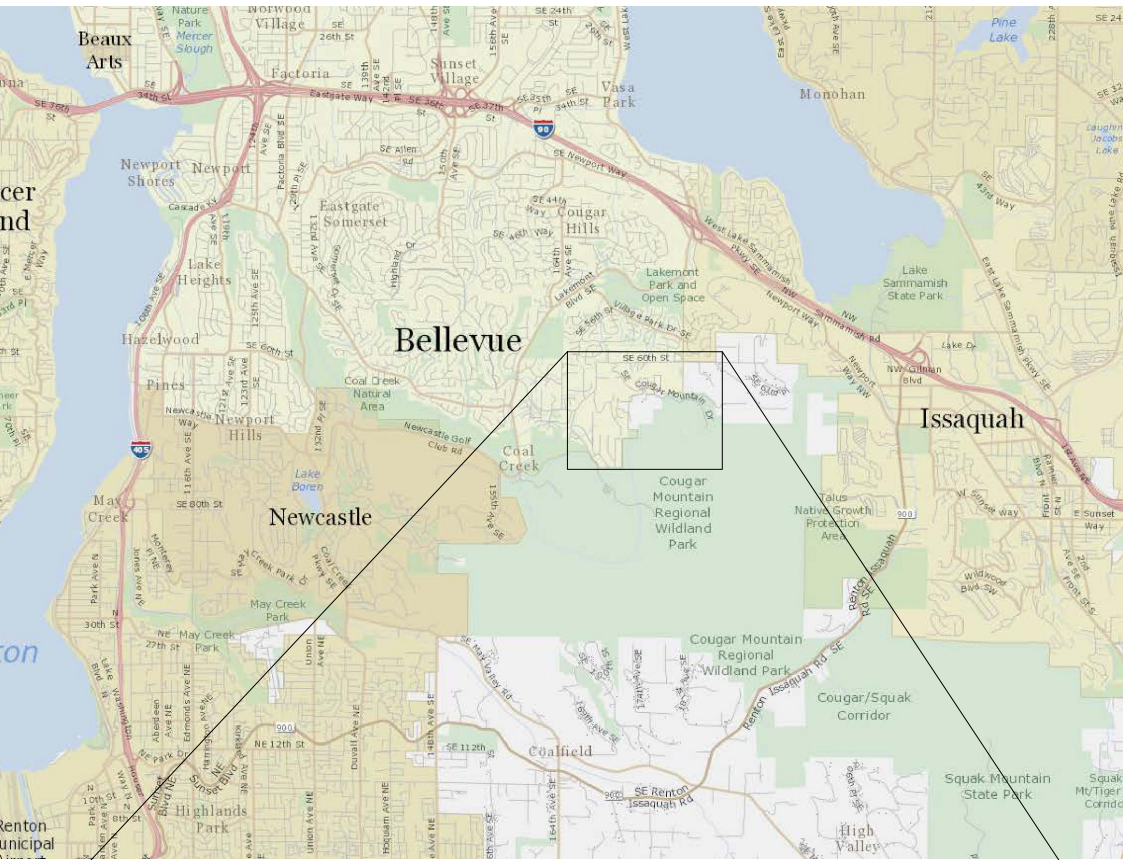
Vegetation Management Plan

COUGAR RIDGE ESTATE



750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

COUGAR RIDGE ESTATE
CLEARING VIOLATION RESTORATION PLAN
PREPARED FOR: VADIM SCHERBININ
APEX ELITE HOMES - PARCEL # 2524059192
16677 SE COUGAR MOUNTAIN WAY
BELLEVUE, WA 98006



VICINITY MAPS

NOTES

1. CRITICAL AREAS DELINEATED BY THE WATERSHED COMPANY IN JULY AND SEPTEMBER OF 2016.
2. SURVEY RECEIVED FROM APEX ELITE HOMES ON AUGUST 25, 2016.
3. CRITICAL SLOPE AREA DESIGNATED BY LeROY SURVEYORS & ENGINEERS.
4. UNAUTHORIZED CLEARING DONE IN JANUARY, 2018.

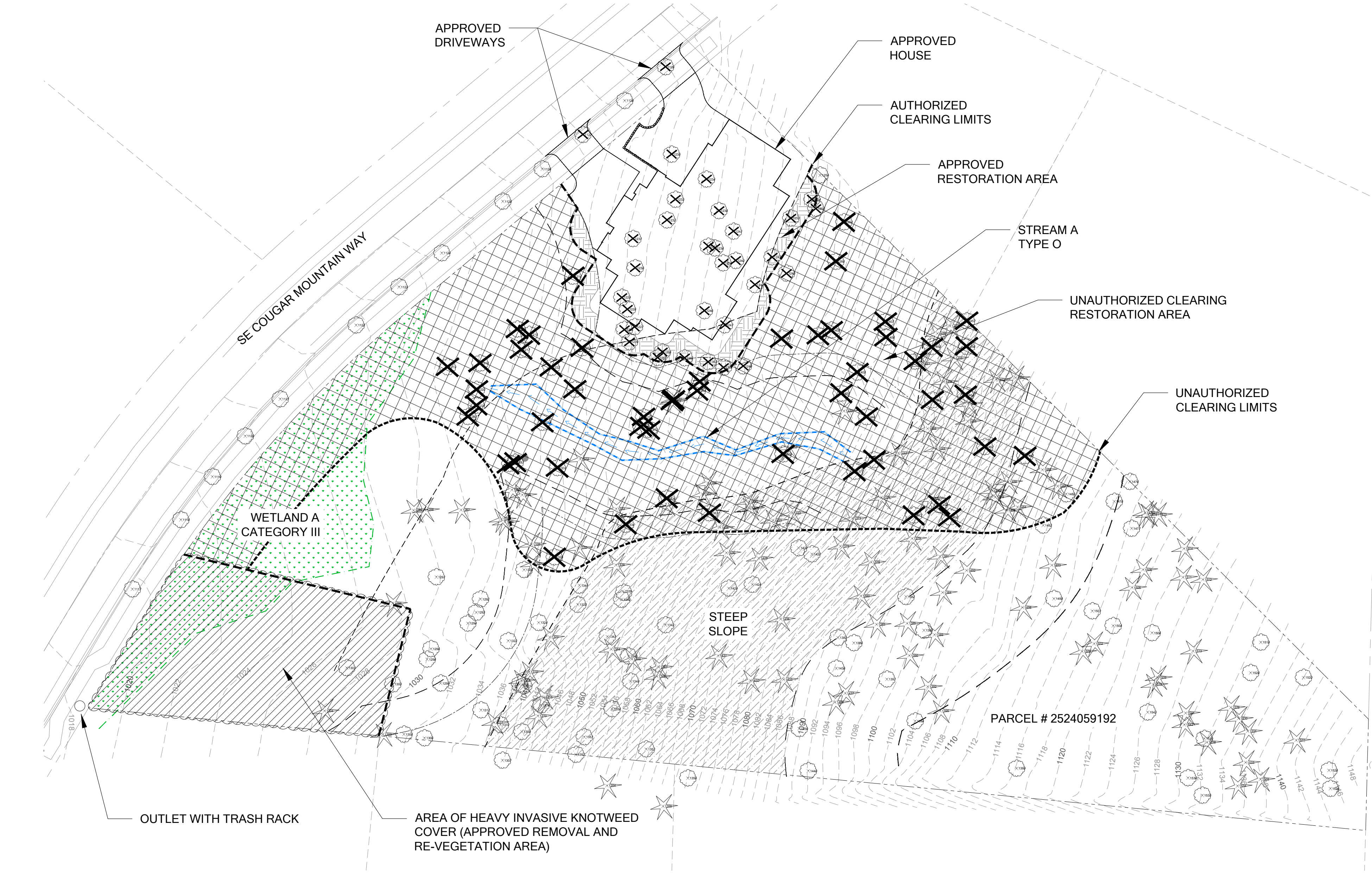
LEGEND

EXISTING FEATURES

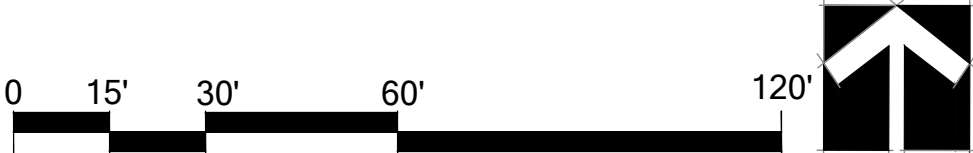
- DELINEATED WETLAND BOUNDARY
- DELINEATED STREAM OHWM
- WETLAND AND STREAM BUFFER
- WETLAND AND STREAM BUFFER BSBL
- TOE OF SLOPE
- TOP OF SLOPE
- STEEP SLOPE AREA
- TOE OF SLOPE SETBACK
- TOP OF SLOPE BUFFER
- PROPERTY BOUNDARY SETBACK
- PROPERTY BOUNDARY
- AUTHORIZED CLEARING LIMITS
- AUTHORIZED TEMPORARY SETBACK IMPACTS (1,184 SF)
- SIGNIFICANT TREES
- AUTHORIZED TREE REMOVAL (33)
- UNAUTHORIZED CLEARING IMPACTS (33,610 SF)
- UNAUTHORIZED CLEARING LIMITS
- UNAUTHORIZED TREE REMOVAL (51)

SHEET INDEX

- W1 EXISTING SITE CONDITIONS
- W2 TESC PLAN
- W3 TESC DETAILS
- W4 PLANTING PLAN OVERVIEW
- W5 UNAUTHORIZED CLEARING AREA PLANTING PLAN
- W6 SETBACK IMPACTS RESTORATION PLAN
- W7 INVASIVE SPECIES MANAGEMENT PLAN
- W8 RE-VEGETATION PLAN
- W9 PLANT INSTALLATION SPECIFICATIONS AND DETAILS
- W10 RESTORATION PLAN NOTES



EXISTING SITE CONDITIONS



SUBMITTALS & REVISIONS		BY	DATE	DESCRIPTION
1	10-04-2016	KMB	REVIEW SET	
2	21-01-2016	KMB	REVISIONS	
3	12-22-2016	KMB	TESC PLAN	
4	03-23-2018	RH	CLEARING VIOLATION RESTORATION PLAN	

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: KB
DESIGNED: KMB
DRAFTED: KMB/RH
CHECKED: KB

JOB NUMBER:
160652

SHEET NUMBER:
W1 OF 10

CITY OF BELLEVUE - STANDARD EROSION CONTROL NOTES

1. ALL CLEARING & GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF BELLEVUE (COB) CLEARING & GRADING CODE, CLEARING & GRADING DEVELOPMENT STANDARDS, LAND USE CODE, UNIFORM BUILDING CODE, PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES, ORDINANCES, AND STANDARDS. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THESE REQUIREMENTS. ANY VARIANCE FROM ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY OF BELLEVUE DEVELOPMENT SERVICES (DSD) PRIOR TO CONSTRUCTION.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE COB.

2. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

3. A COPY OF THE APPROVED PLANS AND DRAWINGS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.
4. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.

6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.

7. ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.

8. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

9. CLEARING SHALL BE LIMITED TO THE AREAS WITHIN THE APPROVED DISTURBANCE LIMITS. EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1ST THROUGH APRIL 30TH. FROM MAY 1ST THROUGH SEPTEMBER 30TH, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND ALSO AT THE THREAT OF RAIN.

10. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.

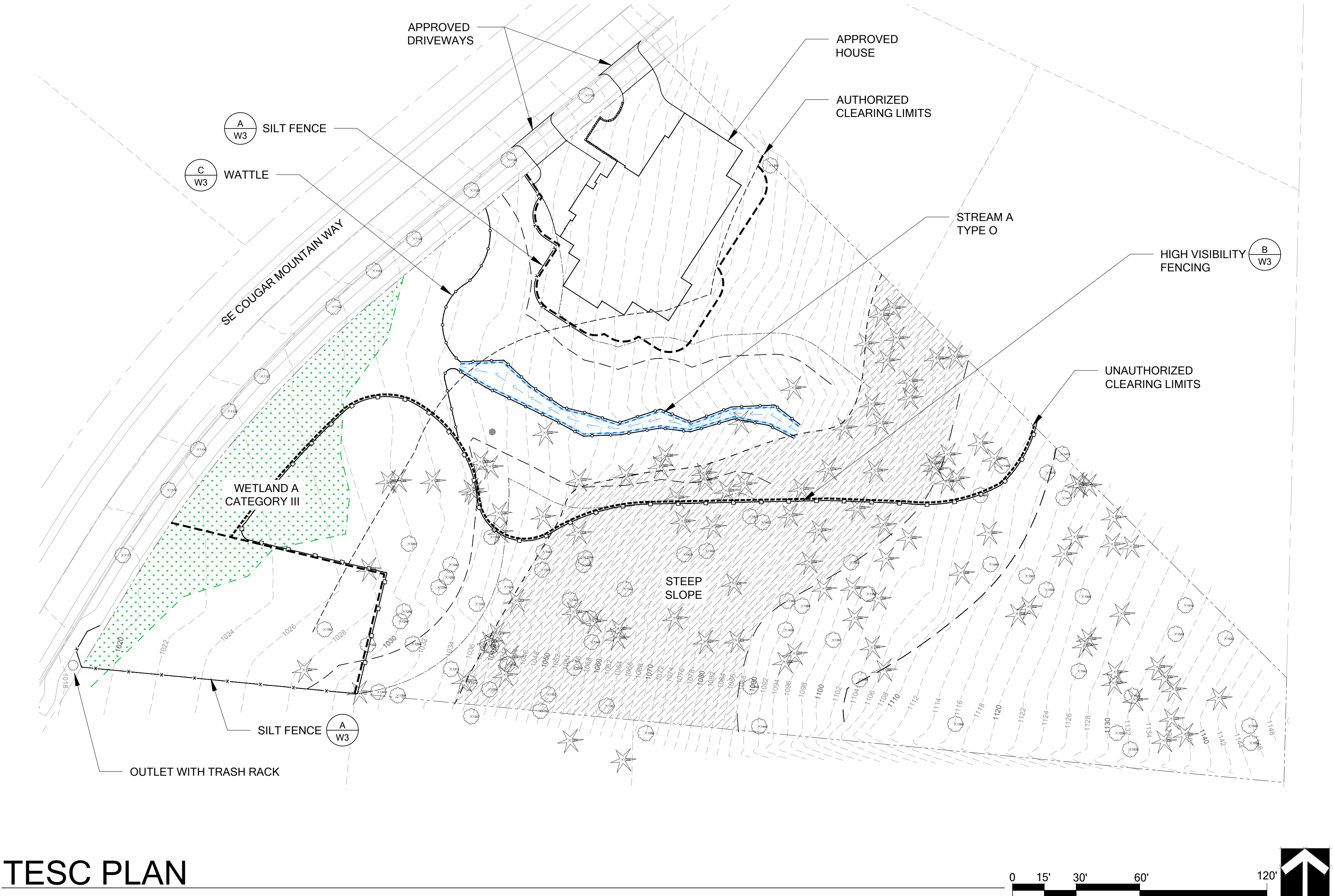
11. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT.
12. THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.

13. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

14. ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON PROPERTY WITHIN THE CITY LIMITS MUST BE DONE IN COMPLIANCE WITH A VALID CLEARING & GRADING PERMIT. LOCATIONS FOR THE MOBILIZATION AREA AND STOCKPILED MATERIAL MUST BE APPROVED BY THE CLEARING AND GRADING INSPECTOR AT LEAST 24 HOURS IN ADVANCE OF ANY STOCKPILING.

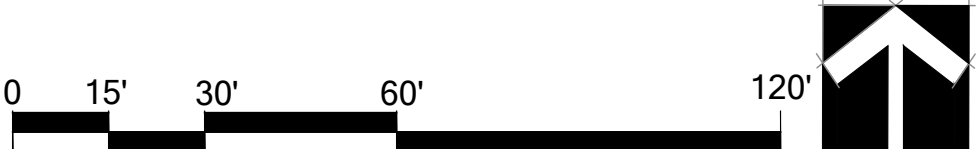
15. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.

16. FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM 5% SLOPE, PER THE INTERNATIONAL RESIDENTIAL CODE (IRC) R401.3.



LEGEND	
EXISTING FEATURES	
	DELINEATED WETLAND BOUNDARY
	DELINEATED STREAM OHWM
	WETLAND AND STREAM BUFFER
	WETLAND AND STREAM BUFFER BSBL
	TOE OF SLOPE
	TOP OF SLOPE
	STEEP SLOPE AREA
	TOE OF SLOPE SETBACK
	TOP OF SLOPE BUFFER
	PROPERTY BOUNDARY SETBACK
	PROPERTY BOUNDARY
	AUTHORIZED CLEARING LIMITS
	SIGNIFICANT TREES
PROPOSED FEATURES	
	UNAUTHORIZED CLEARING LIMITS
	SILT FENCE
	WATTLE
	HIGH VISIBILITY FENCING

TESC PLAN



COUGAR RIDGE ESTATE

CLEARING VIOLATION RESTORATION PLAN

PREPARED FOR: VADIM SCHERBININ

APEX ELITE HOMES - PARCEL # 2524059192

16677 SE COUGAR MOUNTAIN WAY

BELLEVUE, WA 98006

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W2 OF 10

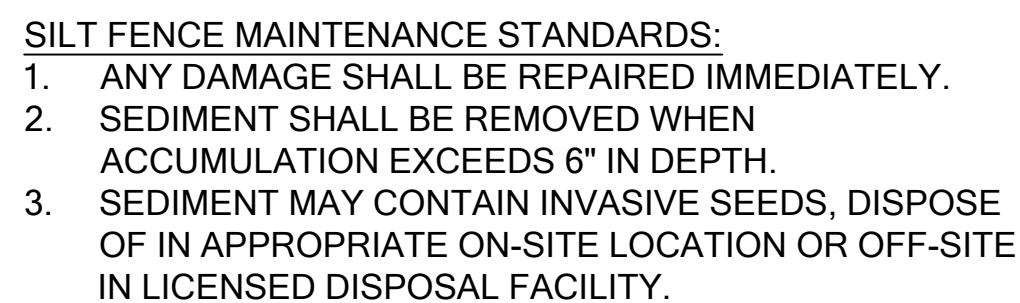
DATE
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FILENAME



BELLEVIEW, WA 98006

SUBMITTALS & REVISIONS

W3 OF 10

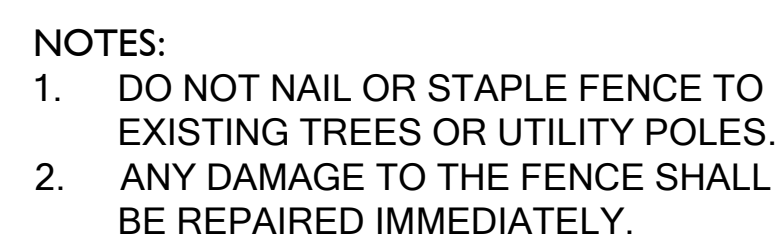


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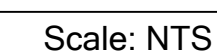


1. COIR LOG OR STRAW WATTLE SHALL BE INSTALLED PRIOR TO GROUND DISTURBING ACTIVITIES.
2. COIR LOG OR STRAW WATTLE SHALL BE 9 INCH IN DIAMETER.
3. STAKING: WOODEN STAKES ARE RECOMMENDED TO SECURE THE COIR LOG OR STRAW WATTLE. BE SURE TO USE A STAKE THAT IS LONG ENOUGH TO PROTRUDE SEVERAL INCHES ABOVE THE COIR LOG OR STRAW WATTLE: 18" IS A GOOD LENGTH FOR HARD, ROCKY SOIL; FOR SOFT LOAMY SOIL USE A 24" STAKE.
4. WHEN INSTALLING RUNNING LENGTHS OF COIR LOG OR STRAW WATTLE, BUTT THE SECOND LOG TIGHTLY AGAINST THE FIRST; DO NOT OVERLAP THE ENDS.
5. STAKE THE LOGS OR WATTLES AT EACH END AND THREE (3) FEET ON CENTER. STAKES SHOULD BE DRIVEN OUTSIDE THE COIR LOG OR STRAW WATTLE, BUT CLOSE ENOUGH TO HOLD IT IN PLACE. LEAVE 2 - 3 INCHES OF THE STAKE PROTRUDING ABOVE THE COIR LOG OR STRAW WATTLE. A HEAVY SEDIMENT LOAD WILL TEND TO PICK UP THE COIR LOG OR STRAW WATTLE AND COULD PULL IT OFF THE STAKES IF THEY ARE DRIVEN DOWN TOO LOW.
6. WHEN COIR LOG OR STRAW WATTLE ARE USED FOR FLAT GROUND APPLICATIONS, DRIVE THE STAKES STRAIGHT DOWN; WHEN INSTALLING COIR LOG OR STRAW WATTLE ON SLOPES, DRIVE THE STAKES PERPENDICULAR TO THE SLOPE. DRIVE THE FIRST END STAKE OF THE SECOND COIR LOG OR STRAW WATTLE AT AN ANGLE TOWARD THE FIRST COIR LOG OR STRAW WATTLE IN ORDER TO HELP ABUT THEM TIGHTLY TOGETHER.

Scale: NTS



Scale: NTS



COUGAR RIDGE ESTATE
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APEX ELITE HOMES - PARCEL # 2524059192
16677 SE COUGAR MOUNTAIN WAY
BELLEVUE, WA 98006



LEGEND

- EXISTING FEATURES**
- DELINEATED WETLAND BOUNDARY
 - DELINEATED STREAM OHWM
 - WETLAND AND STREAM BUFFER
 - WETLAND AND STREAM BUFFER BSBL
 - TOE OF SLOPE
 - TOP OF SLOPE
 - STEEP SLOPE AREA
 - TOE OF SLOPE SETBACK
 - TOP OF SLOPE BUFFER
 - PROPERTY BOUNDARY SETBACK
 - PROPERTY BOUNDARY
 - AUTHORIZED CLEARING LIMITS
 - SIGNIFICANT TREES
 - SETBACK IMPACTS RESTORATION AREA (1,184 SF)
 - INVASIVE SPECIES RE-VEGETATION AREA (7,600 SF)
- PROPOSED FEATURES**
- UNAUTHORIZED CLEARING LIMITS
 - UNAUTHORIZED CLEARING LIMITS RESTORATION AREA (32,544 SF)

PLANTING PLAN OVERVIEW



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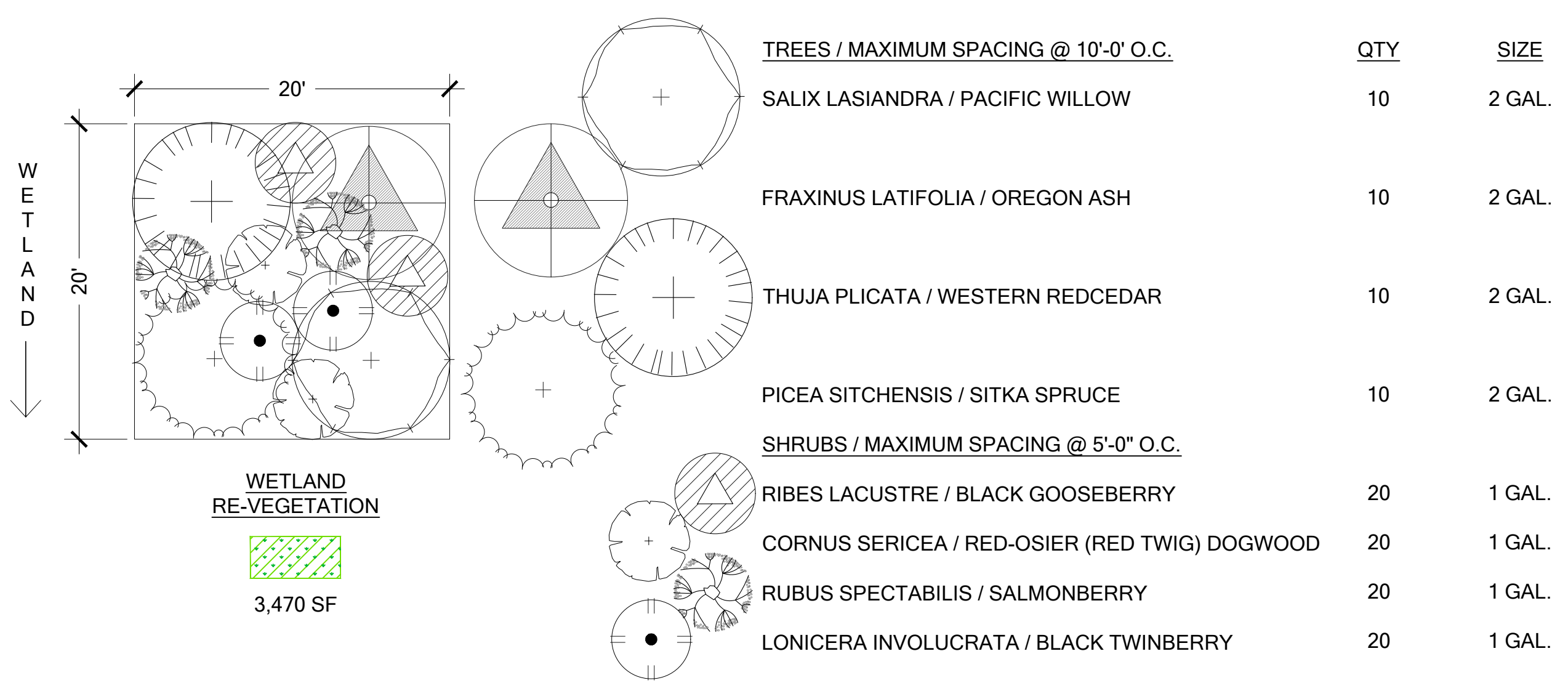
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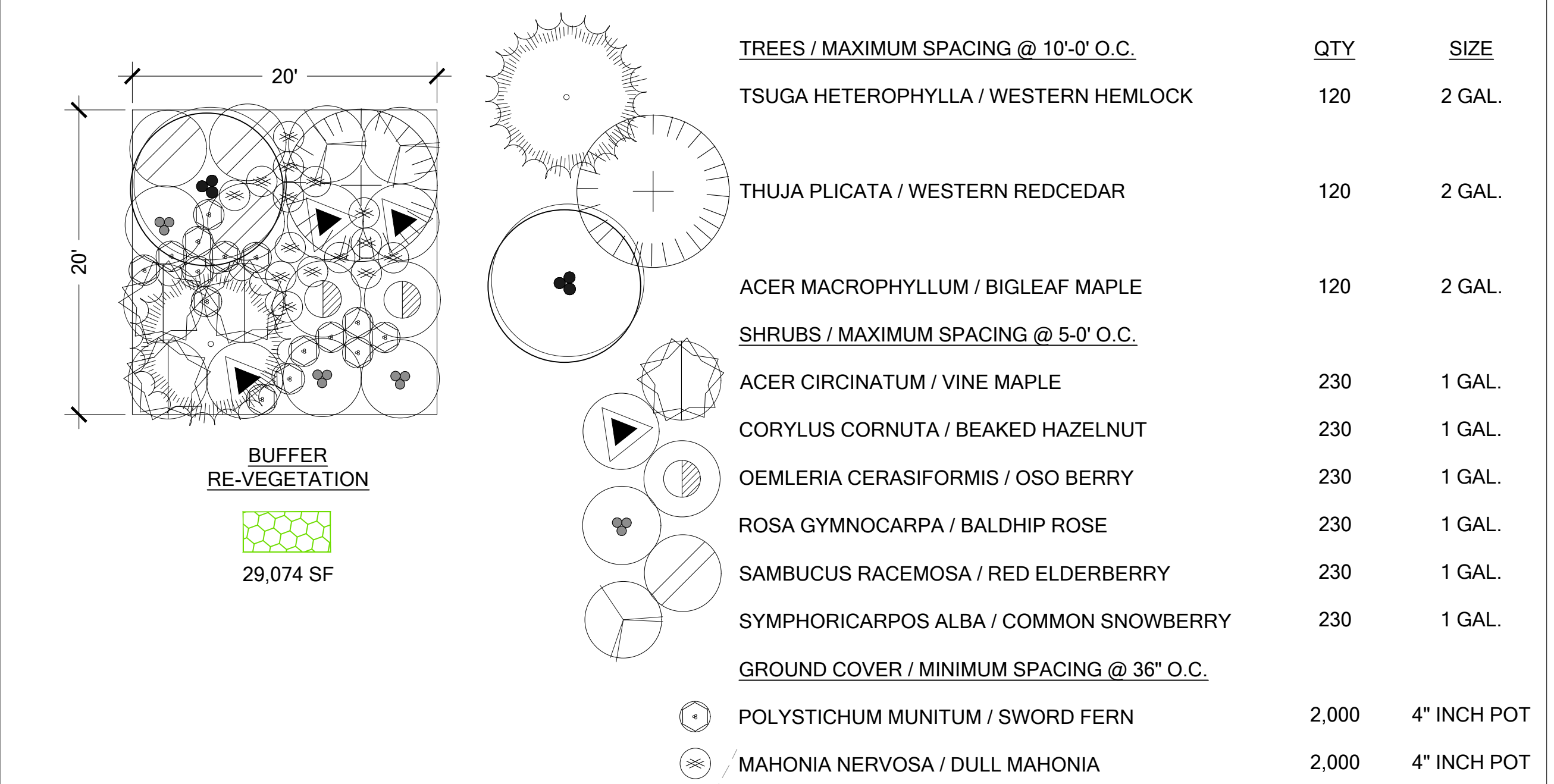
SHEET NUMBER:
W4 OF 10

DATE PRINTED BY FILENAME

UNAUTHORIZED CLEARING AREA WETLAND PLANTING SCHEDULE AND TYPICAL



UNAUTHORIZED CLEARING AREA BUFFER PLANTING SCHEDULE AND TYPICAL



LEGEND

- EXISTING FEATURES
- DELINEATED WETLAND BOUNDARY
 - DELINEATED STREAM OHWM
 - COMBINED WETLAND AND STREAM BUFFER
 - WETLAND AND STREAM BUFFER BSBL
 - TOE OF SLOPE
 - STEEP SLOPE AREA
 - TOE OF SLOPE SETBACK
 - PROPERTY BOUNDARY
 - AUTHORIZED CLEARING LIMITS
 - SIGNIFICANT TREES
- PROPOSED FEATURES
- UNAUTHORIZED CLEARING LIMITS
 - UNAUTHORIZED CLEARING BUFFER PLANTING AREA (APPROXIMATE, 29,074 SF)
 - UNAUTHORIZED CLEARING WETLAND PLANTING AREA (APPROXIMATE, 3,470 SF)

UNAUTHORIZED CLEARING AREA PLANTING PLAN



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CLEARING VIOLATION RESTORATION PLAN

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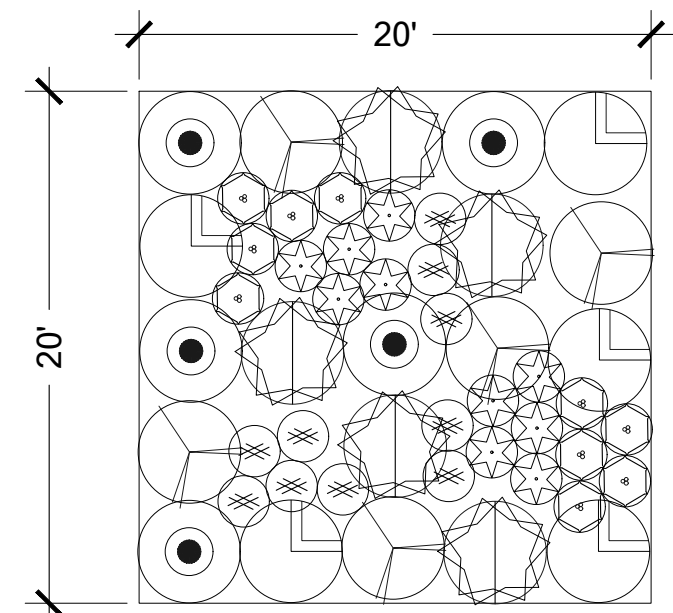
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W5 OF 10

DATE PRINTED BY FILENAME

RESTORED SETBACK AREA PLANTING TYPICAL AND SCHEDULE

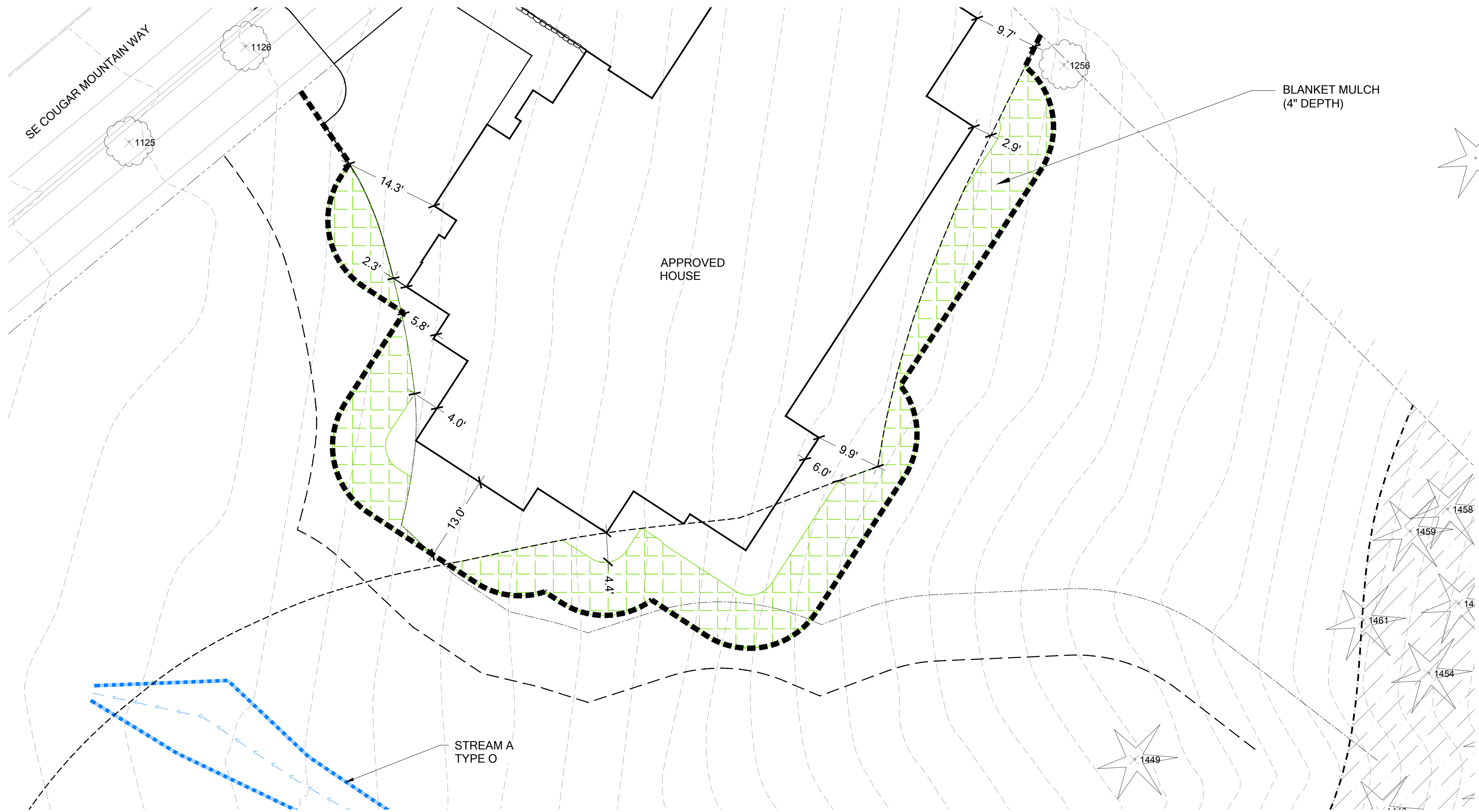


SETBACK
RE-VEGETATION



1,184 SF

SHRUBS / SPACING @ 4' O.C.		QTY	SIZE
ROSA NOOTKA / NOOTKA ROSE		16	1 GAL.
PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK		16	1 GAL.
SYMPHORICARPOS ALBUS / SNOWBERRY		16	1 GAL.
ACER CIRCINATUM / VINE MAPLE		16	1 GAL.
GROUNDCOVERS / SPACING @ 24" O.C.			
POLYSTICHUM MUNITUM / SWORD FERN		32	1 GAL.
ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK		32	1 GAL.
MAHONIA NERVOSA / DULL MAHONIA		32	1 GAL.

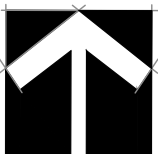


LEGEND

EXISTING FEATURES

- DELINEATED STREAM OHWM
- COMBINED WETLAND AND STREAM BUFFER
- WETLAND AND STREAM BUFFER BSBL
- TOE OF SLOPE
- STEEP SLOPE AREA
- TOE OF SLOPE SETBACK
- PROPERTY BOUNDARY
- AUTHORIZED CLEARING LIMITS
- SIGNIFICANT TREES
- RESTORED SETBACK PLANTING AREA (1,184 SF)

SETBACK IMPACTS RESTORATION PLAN



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W6 OF 10

THESE HERBICIDE CONTROL METHODS WERE DEVELOPED USING INFORMATION FROM KING COUNTY'S KNOTWEED CONTROL BMPS AND CITY OF BELLEVUE PARKS HERBICIDE USE PRACTICES. USE OF IMAZAPYR, A LOW-TOXICITY HERBICIDE, IS RECOMMENDED TO CONTROL KNOTWEED SINCE CUTTING AND DIGGING OF ROOTS HAS PROVEN INEFFECTIVE, ESPECIALLY FOR LARGE PATCHES AND IN A CRITICAL AREA SETTING WHERE NATIVE PLANTS ARE ALSO PRESENT.

- 

SE COUGAR MOUNTAIN WAY

WETLAND A
CATEGORY III

1117

1291

1292

1293

1294

1296

1298

1299

1300

1301

1303

1304

1305

1306

1307

1310

1311

1312

1322

0 5' 10' 20' 40'

INVASIVE SPECIES MANAGEMENT PLAN

1. DUE TO THE VARYING SUCCESS OF TESTED KNOTWEED REMOVAL METHODS, THIS PLAN DOES NOT GUARANTEE TOTAL ERADICATION OF THE INVASIVE KNOTWEED INFESTATION.



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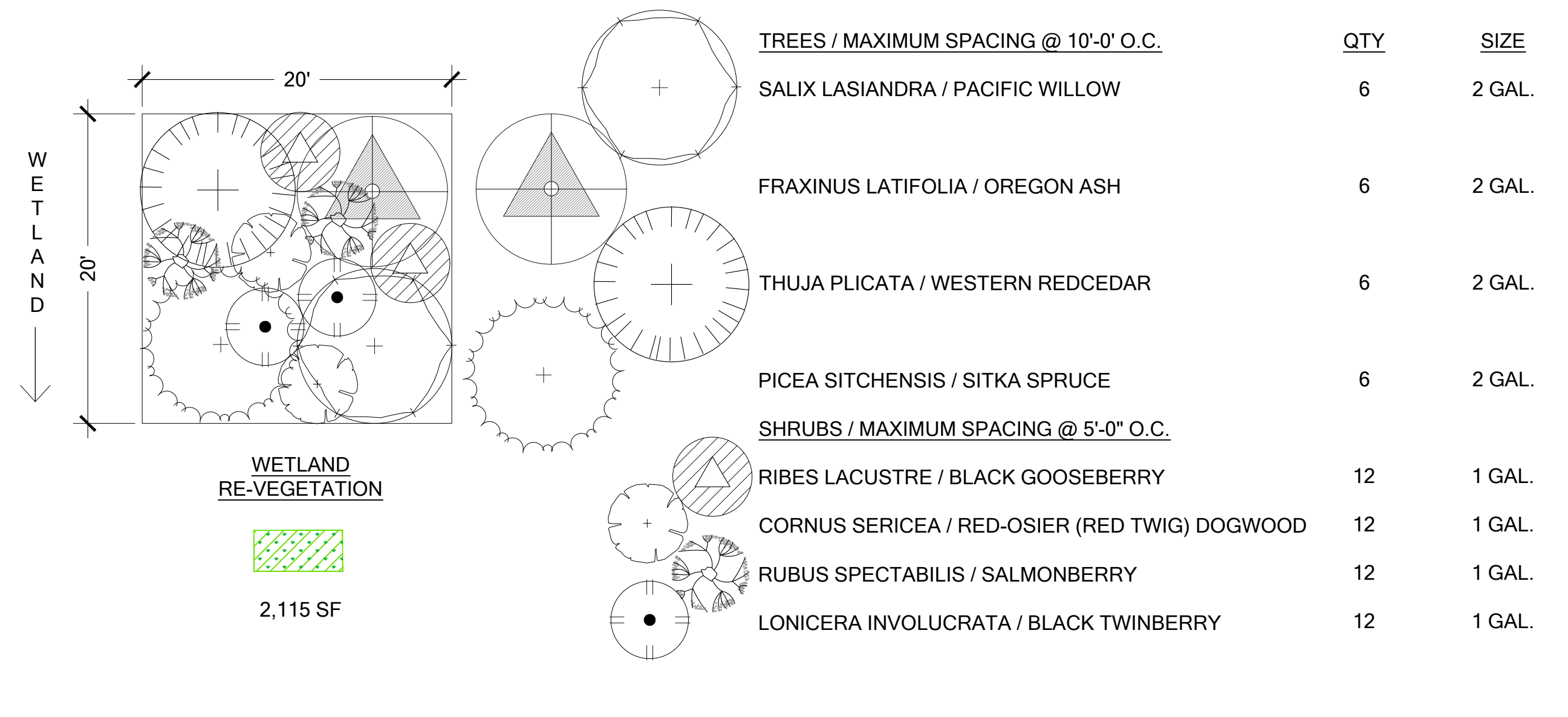
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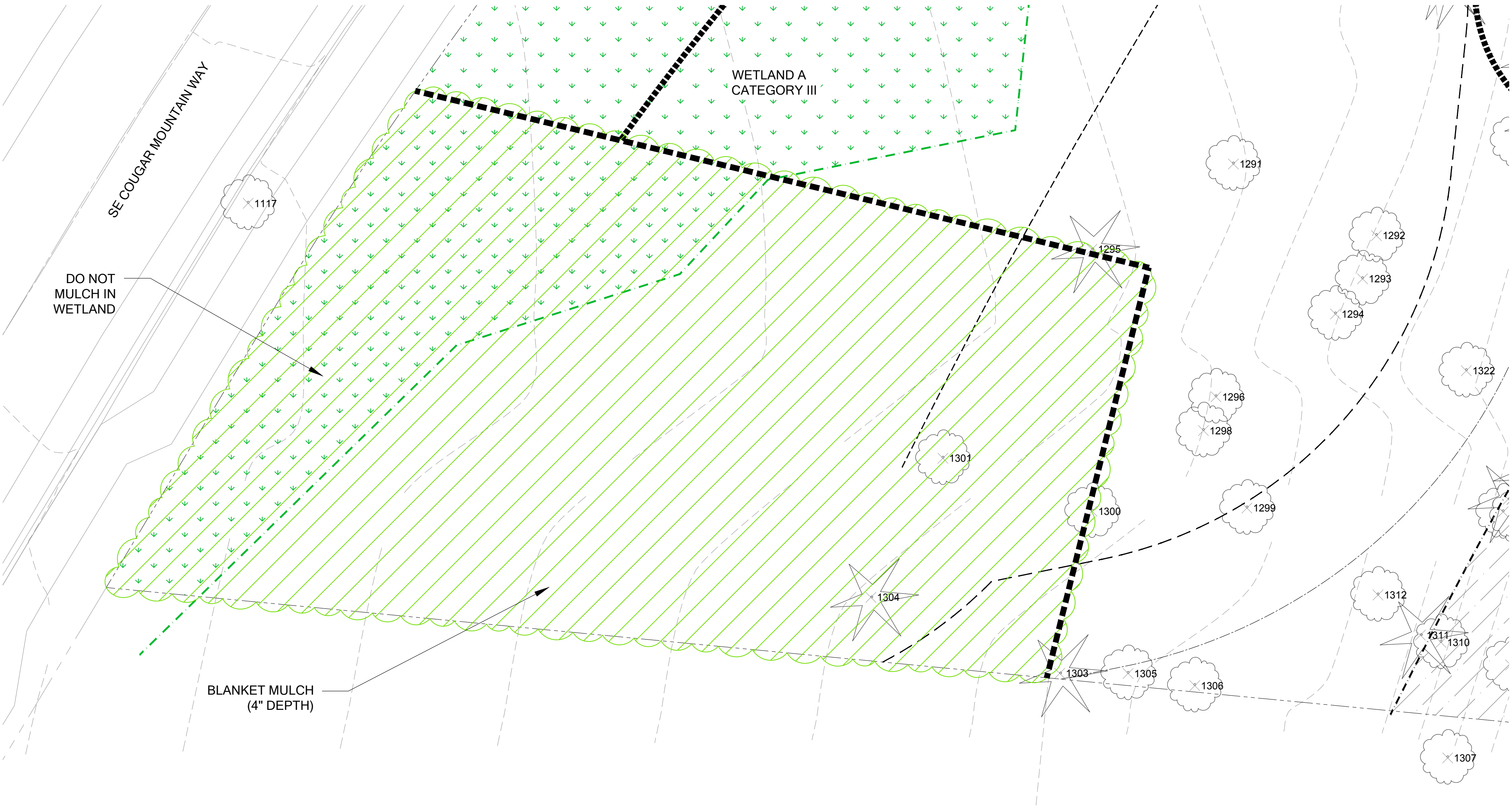
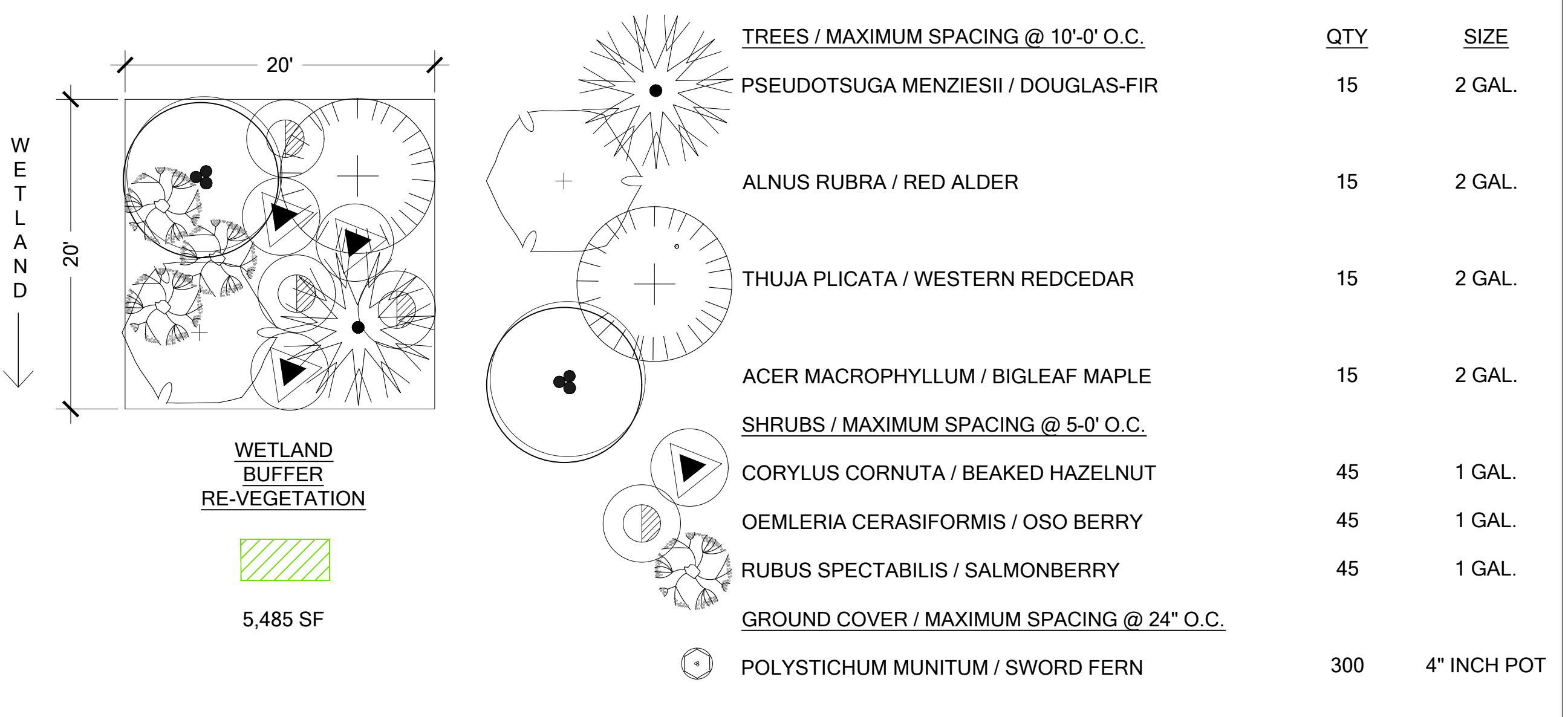
SHEET NUMBER:

W7 OF 10

WETLAND RE-VEGETATION AREA PLANTING SCHEDULE AND TYPICAL



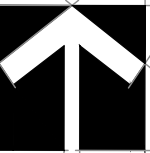
WETLAND BUFFER RE-VEGETATION AREA PLANTING SCHEDULE AND TYPICAL



LEGEND

EXISTING FEATURES	
	DELINEATED WETLAND BOUNDARY
	COMBINED WETLAND AND STREAM BUFFER WETLAND AND STREAM BUFFER BSBL
	TOE OF SLOPE
	STEEP SLOPE AREA
	TOE OF SLOPE SETBACK
	PROPERTY BOUNDARY
	AUTHORIZED CLEARING LIMITS
SIGNIFICANT TREES	
	WETLAND RE-VEGETATION AREA (2,115 SF)
	WETLAND BUFFER RE-VEGETATION AREA (5,485 SF)
PROPOSED FEATURES	
	UNAUTHORIZED CLEARING LIMITS

RE-VEGETATION PLAN



750 Sixth Street South
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160652

SHEET NUMBER:

W8 OF 10

PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

QUALITY ASSURANCE

- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
- PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
- TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
- NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC.; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
- SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
- IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION

- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE

SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.

- PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
- THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

SUBMITTALS

PROPOSED PLANT SOURCES

- WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES

- PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
- HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION

CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS

- TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
- SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
- HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
- LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY

PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT

- PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

GENERAL

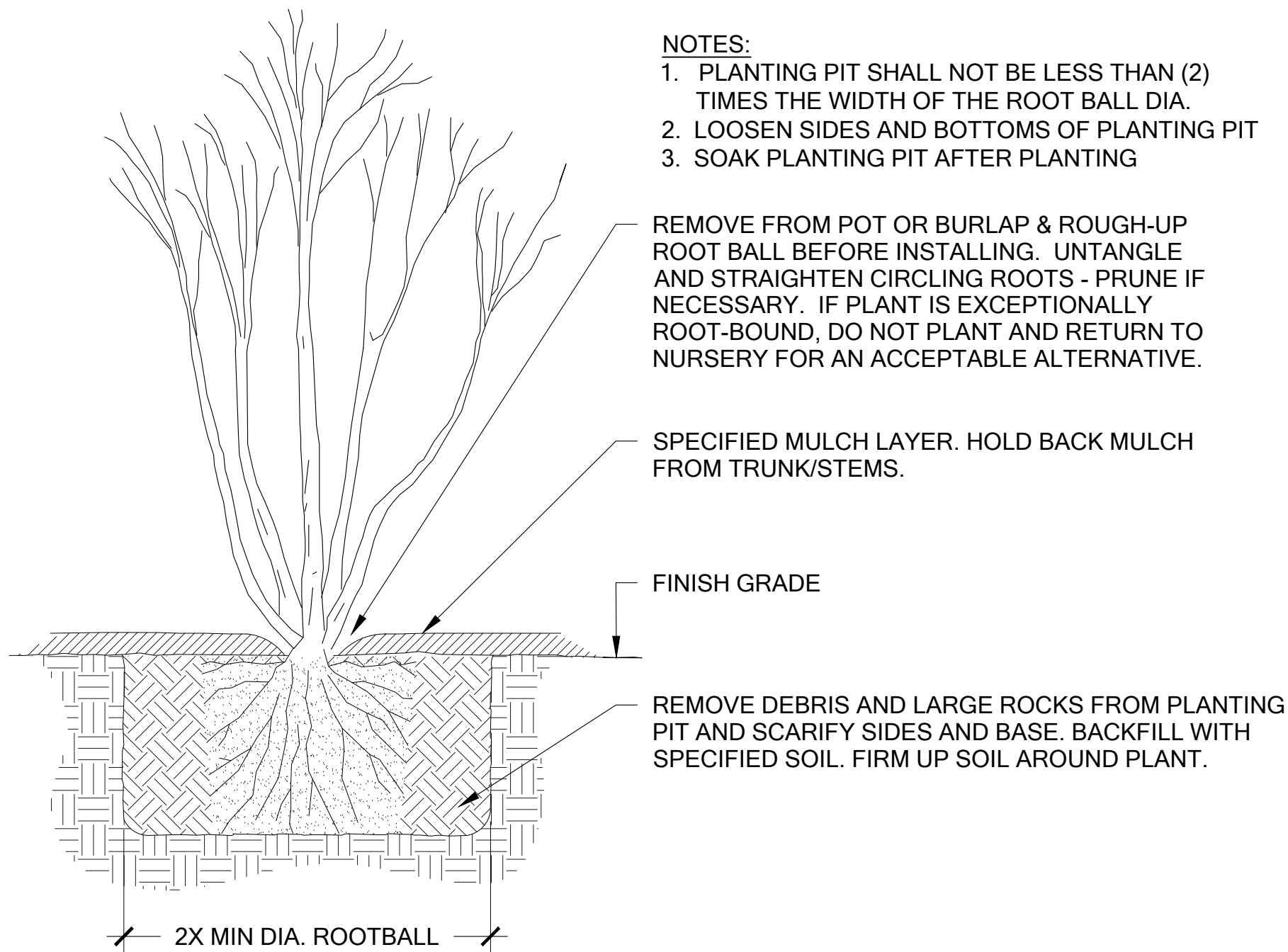
- PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

ROOT TREATMENT

- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.



A TREE AND SHRUB PLANTING

Scale: NTS

PLANT INSTALLATION SPECIFICATIONS AND DETAILS

COUGAR RIDGE ESTATE
CLEARING VIOLATION RESTORATION PLAN
PREPARED FOR: VADIM SCHERBININ
APEX ELITE HOMES - PARCEL # 2524059192
16677 SE COUGAR MOUNTAIN WAY
BELLEVUE, WA 98006

SUBMITTALS & REVISIONS				BY	
NO.	DATE	DESCRIPTION		KMB	RH
1	10-04-2016	REVIEW SET			
2	21-01-2016	REVISIONS			
3	12-22-2016	TESC PLAN			
4	03-23-2018	CLEARING VIOLATION RESTORATION PLAN			

SHEET SIZE: ORIGINAL PLAN IS 22" x 34". SCALE ACCORDINGLY.	
PROJECT MANAGER: KB	FILENAME
DESIGNED: KMB	
DRAFTED: KMB/RH	
CHECKED: KB	
JOB NUMBER:	
160652	
SHEET NUMBER:	
W9 OF 10	
DATE	PRINTED BY

MITIGATION NOTES

SUMMARY

THIS PLAN HAS BEEN PREPARED AS MITIGATION FOR THE REDUCTION OF THE TOE-OF-SLOPE SETBACK ON A RESIDENTIAL PROPERTY IN BELLEVUE (PARCEL #2524059192). THE SETBACK REDUCTION IS NECESSARY TO ACCOMMODATE A SINGLE-FAMILY RESIDENCE AND ASSOCIATED DEVELOPMENT. THE PROPOSED STRUCTURE IS SITED TO AVOID ALL IMPACTS TO CRITICAL AREAS AND CRITICAL AREA BUFFERS AND TO AVOID IMPACTS TO CRITICAL AREA SETBACKS TO THE MAXIMUM EXTENT FEASIBLE, WHILE STILL PROVIDING ADEQUATE ROOM FOR DEVELOPMENT. THE TOE-OF-SLOPE SETBACK PROVIDES SUBSTANTIAL ECOLOGICAL FUNCTION IN ITS CURRENT CONDITION.

THIS PROPOSAL WILL REDUCE THE ON-SITE TOE-OF-SLOPE SETBACK FROM 75 FEET TO A MINIMUM OF 55 FEET. FOR A REDUCTION OF 1,347 SQUARE FEET OF WETLAND, STREAM AND SLOPE SETBACK AREA. TO OFFSET THE MODIFICATIONS TO THE STANDARD SETBACKS, INVASIVE WEED CONTROL IS PROPOSED WITHIN THE WETLAND AND WETLAND BUFFER ALONG WITH INSTALLATION OF 84 NATIVE TREES AND 183 NATIVE SHRUBS WITHIN THE WETLAND AND WETLAND BUFFER AREA.

ADDITIONALLY, SEPARATE FROM THE MITIGATION AREA, A PORTION OF THE SETBACK IMPACT AREAS WILL ALSO BE RE-VEGETATED WITH NATIVE PLANTS. AREAS SUBJECTED TO UNAUTHORIZED VEGETATION REMOVAL WILL BE RESTORED WITH A NATIVE FOREST COMMUNITY REPRESENTATIVE OF THE PRE-IMPACT CONDITION. WHILE A TEMPORAL LOSS OF FUNCTION IS UNAVOIDABLE, IMPLEMENTATION OF THIS PLAN WILL ENSURE RE-ESTABLISHMENT OF THE NATIVE CONDITION OVER TIME.

WORK SEQUENCE (SEE MATERIALS FOR ITEMS IN BOLD)

1. MARK THE CLEARING LIMITS WITH HIGH VISIBILITY FENCING OR SIMILAR MEANS.
2. INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE TESC PLAN (SHEET W2).
3. CLEAR ALL INVASIVE AND NON-NATIVE, ORNAMENTAL PLANTS TO BE REMOVED PER THE PLANS AND DETAILS. FOR KNOTWEED REMOVAL, FOLLOW KNOTWEED MANAGEMENT PLAN.
4. INSTALL NATIVE PLANTS PER PLANTING DETAIL ON PAGE W9.
 - a. NATIVE PLANT INSTALLATION SHOULD OCCUR DURING THE DORMANT SEASON (OCTOBER 15TH THROUGH MARCH 1ST) IN FROST-FREE PERIODS ONLY.
 - b. LAYOUT PLANT MATERIAL PER PLAN FOR INSPECTION BY THE RESTORATION SPECIALIST. PLANT SUBSTITUTIONS WILL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE RESTORATION SPECIALIST.
 - c. INSTALL PLANTS PER PLANTING DETAIL
6. WATER EACH PLANT THOROUGHLY TO REMOVE AIR POCKETS.
7. INSTALL A TEMPORARY IRRIGATION SYSTEM CAPABLE OF SUPPLYING AT LEAST 1-INCH OF WATER PER WEEK TO THE ENTIRE PLANTED AREA DURING THE DRY SEASON (JUNE 1ST THROUGH SEPTEMBER 30TH).
8. PLACE FOUR INCHES OF WOOD CHIP MULCH OVER THE ENTIRE PLANTING AREA OUTSIDE OF THE WETLAND AND STREAM.
9. ONE YEAR AFTER INITIAL PLANTING, APPLY A SLOW-RELEASE, PHOSPHOROUS-FREE, GRANULAR FERTILIZER TO EACH INSTALLED PLANT.

KNOTWEED MANAGEMENT PLAN

THESE HERBICIDE CONTROL METHODS WERE DEVELOPED USING INFORMATION FROM KING COUNTY'S KNOTWEED CONTROL BMPs AND CITY OF BELLEVUE PARKS HERBICIDE USE PRACTICES. USE OF IMAZAPYR, A LOW-TOXICITY HERBICIDE, IS RECOMMENDED TO CONTROL KNOTWEED SINCE CUTTING AND DIGGING OF ROOTS HAS BEEN PROVEN INEFFECTIVE, ESPECIALLY FOR LARGE PATCHES AND IN A CRITICAL AREA SETTING WHERE NATIVE PLANTS ARE ALSO PRESENT.

1. STAKE OUT JAPANESE KNOTWEED CONTROL AREA AND VERIFY WITH RESTORATION SPECIALIST.
2. AT THE BEGINNING OF JUNE CUT STEMS CLOSE TO THE GROUND USING A MACHETE, LOPPERS OR PRUNING SHEARS. BE SURE NOT TO SCATTER STEMS OR ROOT FRAGMENTS.
3. RAKE AND PILE UP THE CUT STEMS ON A TARP OR A SURFACE WHERE THEY WILL DRY OUT. DRIED STEMS CAN BE CRUSHED AND COMPOSTED ON SITE OR DISPOSED OF IN A LICENSED DISPOSAL SITE.
4. BE SURE THAT ALL PIECES OF STEMS AND CUT KNOTWEED ARE DISPOSED OF PROPERLY TO PREVENT RE-INFESTATION.
5. ONCE STEMS HAVE BEEN CUT DOWN TO THE GROUND WAIT SIX (6) WEEKS FOR STEMS TO REGROWN TO APPROXIMATELY 3'-6" ABOVE THE GROUND.
6. CUT ANY FLOWERS THAT HAVE APPEARED IN THE SHORT GROW BACK PERIOD TO PREVENT POLLINATORS FROM BEING AFFECTED BY THE HERBICIDES.
7. HERBICIDE APPLICATIONS SHOULD BE DONE IN JULY TO SEPTEMBER FOR MAXIMUM EFFICIENCY SO PLAN CUTTING ACCORDINGLY TO ALLOW SUFFICIENT TIME FOR RESPROUTING. HERBICIDE APPLICATIONS SHOULD BE CONDUCTED ONLY BY STATE-LICENSED APPLICATORS.
8. FOLLOWING ALL LABEL DIRECTIONS APPLY THE MANUFACTURER RECOMMENDED AMOUNT OF IMAZAPYR BY THE DAUBING OR PAINTING METHOD TO NEWLY THE REGROWN STEMS OF THE KNOTWEED.
9. MONITOR KNOTWEED INFESTATION AND REPEAT AS NEW STARTS BEGIN TO COME BACK ONE MORE TIME BEFORE THE FIRST FROST.
10. REPEAT THIS PROCEDURE IN SUBSEQUENT GROWING SEASONS UNTIL RESPROUTING HAS STOPPED AND KNOTWEED IS NO LONGER PRESENT IN THE WEED REMOVAL AREA.

CONSTRUCTION NOTES

THE RESTORATION SPECIALIST SHALL MONITOR:

1. MARKING OF THE CLEARING LIMITS WITH HIGH-VISIBILITY FENCING OR SIMILAR MEANS.
2. INSTALLATION OF EROSION CONTROL MEASURES AS SHOWN ON THE TESC PLAN (SHEET W2).
3. ALL SITE PREPARATION, INCLUDING INVASIVE SPECIES MANAGEMENT.
4. APPLICATION OF A FOUR-INCH THICK LAYER OF COURSE WOODCHIP MULCH IN ALL CLEARED AREAS, EXCEPT WITHIN WETLAND A AND STREAM A.
5. ALL GRADING ACTIVITIES.
6. PLANT MATERIAL INSPECTION.
 - a. PLANT MATERIAL DELIVERY.
 - b. 100% PLANT INSTALLATION INSPECTION.

SHORT-TERM OBJECTIVES

1. RESTORE SLOPE STABILITY IN CLEARED AREAS AND MAINTAIN HABITAT FUNCTIONS TO THE EXTENT FEASIBLE AT THIS STAGE.
2. RESTORE NATIVE PLANT DENSITY PER THE PLANTING PLAN.
3. MAINTAIN EXISTING HABITAT FEATURES, SPECIFICALLY LEAVE IN PLACE DEBRIS PILES AND SNAGS THAT RESULTED FROM THE CLEARING ACTIVITIES, AS THESE PROVIDE QUALITY HABITAT. THE REMAINING ROOT STRUCTURES WILL CONTINUE TO STABILIZE THE SLOPES.
4. PROVIDE A THICK LAYER OF MULCH TO HELP PREVENT EROSION OF EXPOSED SOILS ON THE SLOPES, WHILE MAINTAINING MOISTURE AND PREVENTING THE SPREAD OF WEEDS TO AID IN THE ESTABLISHMENT OF THE INSTALLED VEGETATION.

LONG-TERM OBJECTIVES

ESTABLISH NATIVE TREES AND SHRUBS THROUGHOUT THE VEGETATION MANAGEMENT AREA TO HELP MAINTAIN STABILITY AND ENHANCE DEGRADED CRITICAL AREAS. LONG-TERM, THE PLANTING PLAN AND GENERAL MAINTENANCE PRACTICES ARE INTENDED TO RESTORE THE ECOLOGIC SERVICES PROVIDED BY THE MANAGEMENT AREA.

1. IMPROVE WETLAND AREA AND WETLAND BUFFER FUNCTION BY REMOVING INVASIVE WEEDS AND ESTABLISHING NATIVE TREES AND SHRUBS.
 - a. CREATE A DENSE, NATIVE, TREE AND SHRUB COMMUNITY.
 - b. REMOVE NON-NATIVE AND INVASIVE PLANT SPECIES FROM THE ENHANCEMENT AREA.
2. RESTORE THE AREAS WHERE UNAUTHORIZED CLEARING OCCURRED TO A DIVERSE, FORESTED COMMUNITY, INCLUDING WETLAND, STREAM, AND STEEP SLOPE BUFFER AREAS.

PERFORMANCE STANDARDS

THE STANDARDS LISTED BELOW SHALL BE USED TO JUDGE THE SUCCESS OF THE PLAN OVER TIME.

1. PLANT SURVIVAL:
 - a. ACHIEVE 100% SURVIVAL OF INSTALLED CONTAINER PLANTS BY THE END OF YEAR-1. THIS STANDARD CAN BE MET THROUGH PLANT ESTABLISHMENT OR THROUGH REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
 - b. ACHIEVE 80% SURVIVAL OF INSTALLED CONTAINER PLANTS BY THE END OF YEAR-2. THIS STANDARD CAN BE MET THROUGH PLANT ESTABLISHMENT OR THROUGH REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS. NATIVE VOLUNTEERS MAY COUNT TOWARDS THIS STANDARD.
2. NATIVE WOODY PLANT COVER:
 - a. ACHIEVE 60% COVER OF NATIVE TREE, SHRUB, AND GROUNDCOVER SPECIES BY THE END OF YEAR 3. THIS MAY INCLUDE EXISTING AND VOLUNTEER NATIVE UNDERSTORY PLANT SPECIES. AT LEAST 50% OF AERIAL COVER MUST BE PROVIDED BY TREE AND SHRUB SPECIES.
 - b. ACHIEVE 85% COVER OF NATIVE TREE, SHRUB, AND GROUNDCOVER SPECIES BY THE END OF YEAR 5. THIS MAY INCLUDE EXISTING AND VOLUNTEER NATIVE UNDERSTORY PLANT SPECIES. AT LEAST 75% OF AERIAL COVER MUST BE PROVIDED BY TREE AND SHRUB SPECIES.
3. SPECIES DIVERSITY: ESTABLISH AT LEAST 3 NATIVE TREE SPECIES, 5 NATIVE SHRUB SPECIES, AND TWO NATIVE GROUNDCOVER SPECIES IN YEARS 3-5.
4. INVASIVE COVER: NO MORE THAN 10% COVER BY INVASIVE WEED SPECIES IN THE RESTORATION AREAS IN ANY MONITORING YEAR.

MONITORING PLAN

THIS MONITORING PROGRAM IS DESIGNED TO TRACK THE SUCCESS OF THE RESTORATION SITE OVER TIME AND TO MEASURE THE DEGREE TO WHICH IT IS MEETING THE PERFORMANCE STANDARDS OUTLINED PREVIOUSLY.

AN AS-BUILT PLAN AND REPORT WILL BE PREPARED BY THE RESTORATION SPECIALIST PRIOR TO THE BEGINNING OF THE MONITORING PERIOD. THE AS-BUILT PLAN SHALL BE A MARK-UP OF THE PLANTING PLANS INCLUDED IN THIS PLAN SET. THE AS-BUILT REPORT WILL DOCUMENT ANY DEPARTURES IN PLANT PLACEMENT OR OTHER COMPONENTS FROM THE PROPOSED PLAN.

DURING THE AS-BUILT INSPECTION, THE RESTORATION SPECIALIST SHALL ESTABLISH PHOTO POINTS AND INSTALL MONITORING TRANSECTS IN THE PLANTED AREA. APPROXIMATE TRANSECT AND PHOTO POINT LOCATIONS SHALL BE MARKED ON THE AS-BUILT PLAN. DURING EACH MONITORING EVENT, PERCENT COVER DATA SHALL BE RECORDED ALONG THE ESTABLISHED TRANSECTS USING THE LINE-INTERCEPT METHOD. IF FURTHER DOCUMENTATION OF COVER IS REQUIRED, PLANTED AREAS LOCATED OUTSIDE OF TRANSECTS MAY BE VISUALLY ASSESSED USING THE COVER CLASS METHOD.

MONITORING SHOULD TAKE PLACE TWICE ANNUALLY FOR FIVE YEARS WITH ONE ANNUAL REPORT SUBMISSION. THERE SHALL BE A SPRING AND A LATE SUMMER/FALL VISIT. FIRST-YEAR MONITORING SHOULD COMMENCE IN THE FIRST SUMMER OR FALL SUBSEQUENT TO INSTALLATION.

THE SPRING MONITORING VISIT WILL RECORD MAINTENANCE NEEDS SUCH AS PLANT REPLACEMENT AND WEEDING NEEDS. FOLLOWING THE SPRING VISIT THE RESTORATION SPECIALIST WILL NOTIFY THE OWNER AND/OR MAINTENANCE CREWS OF NECESSARY EARLY GROWING SEASON MAINTENANCE. THE SECOND ANNUAL MONITORING VISIT WILL CONTAIN THE BULK OF THE SITE ASSESSMENT AND WILL TAKE PLACE IN THE LATE SUMMER OR EARLY FALL. THE LATE-SEASON FORMAL MONITORING VISIT SHALL RECORD AND REPORT THE FOLLOWING IN AN ANNUAL REPORT SUBMITTED TO THE CITY OF BELLEVUE.

1. GENERAL SUMMARY OF THE SPRING VISIT.
2. COUNTS OF LIVE TREES, SHRUBS, AND GROUND COVER BY SPECIES IN THE PLANTED AREAS IN YEARS 1 AND 2. SIGNIFICANT DIE-OFF SHOULD BE REPORTED BY SPECIES AND QUANTITY IN ANY MONITORING YEAR.
3. ESTIMATE OF NATIVE TREE, SHRUB, AND GROUND COVER AERIAL COVERAGE USING THE LINE-INTERCEPT METHOD.
4. ESTIMATE OF INVASIVE AERIAL COVERAGE USING THE LINE-INTERCEPT METHOD.
5. PHOTOGRAPHIC DOCUMENTATION FROM FIXED REFERENCE POINTS IN EACH PLANTING AREA.
6. INTRUSIONS INTO THE PLANTING AREAS, VANDALISM OR OTHER ACTIONS THAT IMPAIR THE INTENDED FUNCTIONS OF THE PLANTED AREAS.
7. RECOMMENDATIONS FOR MAINTENANCE OR REPAIR OF ANY PORTION OF THE RESTORATION AREA.

MAINTENANCE PLAN

THE SITE WILL BE MAINTAINED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS FOR FIVE YEARS FOLLOWING COMPLETION OF THE CONSTRUCTION.

1. FOLLOW THE RECOMMENDATIONS NOTED IN THE PREVIOUS MONITORING SITE VISIT AND THE SPRING MAINTENANCE MEMO.
2. GENERAL WEEDING FOR ALL PLANTED AREAS:
 - a. AT LEAST TWICE YEARLY, REMOVE ALL COMPETING WEEDS AND WEED ROOTS FROM BENEATH EACH INSTALLED PLANT AND ANY DESIRABLE VOLUNTEER VEGETATION TO A DISTANCE OF 18 INCHES FROM THE MAIN PLANT STEM. WEEDING SHOULD OCCUR AT LEAST TWICE DURING THE SPRING AND SUMMER. FREQUENT WEEDING WILL RESULT IN LOWER MORTALITY, LOWER PLANT REPLACEMENT COSTS, AND INCREASED LIKELIHOOD THAT THE PLAN MEETS PERFORMANCE STANDARDS BY YEAR 5.
 - b. MORE FREQUENT WEEDING MAY BE NECESSARY DEPENDING ON WEED CONDITIONS THAT DEVELOP AFTER PLAN INSTALLATION.
 - c. DO NOT WEED THE AREA NEAR THE PLANT BASES WITH STRING TRIMMER (WEED WHACKER/WEED EATER). NATIVE PLANTS ARE EASILY DAMAGED OR KILLED, AND WEEDS EASILY RECOVER AFTER TRIMMING.
3. APPLY SLOW RELEASE GRANULAR FERTILIZER TO EACH INSTALLED PLANT ANNUALLY IN THE SPRING (BY JUNE 1) OF YEARS 2 THROUGH 5.
4. REPLACE MULCH AS NECESSARY TO MAINTAIN A 4-INCH-THICK LAYER, RETAIN SOIL MOISTURE, AND LIMIT WEEDS.
5. REPLACE DEAD PLANTS FOUND IN THE SUMMER MONITORING VISITS DURING THE UPCOMING FALL/WINTER DORMANT SEASON (OCTOBER 15 TO MARCH 1) OR AT THE DIRECTION OF THE RESTORATION PROFESSIONAL.
6. PROVIDE IRRIGATION FOR THE ENTIRE PLANTED AREA WITH A MINIMUM OF ONE INCH OF WATER PROVIDED PER WEEK FROM JUNE 1ST THROUGH SEPTEMBER 30TH FOR AT LEAST THE FIRST TWO YEARS FOLLOWING INSTALLATION THROUGH THE OPERATION OF A TEMPORARY IRRIGATION SYSTEM.

CONTINGENCY PLAN

IF ANY MONITORING REPORT REVEALS THAT THE RESTORATION PLAN HAS FAILED IN WHOLE OR IN PART, AND SHOULD THAT FAILURE BE BEYOND THE SCOPE OF ROUTINE MAINTENANCE, THE APPLICANT WILL SUBMIT A CONTINGENCY PLAN TO THE CITY OF BELLEVUE FOR APPROVAL. THIS PLAN MAY INCLUDE REPLANTING, SOIL AMENDMENTS OR TOP-DRESSING, SUBSTITUTIONS FOR SPECIES SELECTED IN THE ORIGINAL PLAN, AND ADAPTIVE WEED CONTROL MEASURES.

MATERIAL SPECIFICATIONS AND DEFINITIONS

1. WOOD CHIP MULCH: WOOD CHIPS OR EQUIVALENT (CHIPPED WOODY MATERIAL) APPROXIMATELY 1 INCH MINIMUM TO 3 INCHES IN MAXIMUM DIMENSION (NOT SAWDUST OR COARSE HOG FUEL). PACIFIC TOPSOIL SELLS SUITABLE WOOD CHIP MULCH CALLED "DOT WOOD CHIP MULCH" AT MANY OF THEIR LOCATIONS. PACIFIC TOPSOIL: (800) 884-7645. MULCH SHALL NOT CONTAIN APPRECIABLE QUANTITIES OF GARBAGE, PLASTIC, METAL, SOIL, AND DIMENSIONAL LUMBER OR CONSTRUCTION/ DEMOLITION DEBRIS. NOTE: ARBORIST WOOD CHIPS GENERALLY CONTAIN WEED SEEDS AND ARE NOT AN ACCEPTABLE ALTERNATIVE. QUANTITY REQUIRED: 445 CY
2. RESTORATION SPECIALIST: THE WATERSHED COMPANY [425-822-5242] PERSONNEL OR OTHER PERSON QUALIFIED TO EVALUATE ENVIRONMENTAL RESTORATION PROJECTS.
3. FERTILIZER: SLOW-RELEASE, PHOSPHOROUS-FREE GRANULAR FERTILIZER, MOST COMMERCIAL NURSERIES CARRY THIS PRODUCT. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR USE. KEEP FERTILIZER IN WEATHER-TIGHT CONTAINER WHILE ON-SITE. FERTILIZER IS ONLY TO BE APPLIED IN YEARS 2-5, AND AT THE DIRECTION OF THE RESTORATION SPECIALIST. FERTILIZER SHOULD NOT BE APPLIED IN YEAR-1



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Science & Design

COUGAR RIDGE ESTATE
CLEARING VIOLATION RESTORATION PLAN
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W10 OF 10

DATE	PRINTED BY	FILENAME
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RESTORATION PLAN NOTES